

PROTECTION OF METALS

Volume 19, Numbers 1-6, 1983

(A translation of Zashchita Metallov)

A

Abdullin, I. A. - 139
 Afanas'ev, K. I. - 166, 227
 Agaev, N. M. - 390
 Agafonov, V. V. - 740
 Akol'zin, A. P. - 255, 392
 Alekseev, S. N. - 715
 Alekseeva, L. N. - 265
 Alimov, V. I. - 652
 Alisova, S. P. - 322, 746
 Allakhverdova, A. V. - 390
 Al'tman, M. B. - 99
 Amirkhanova, N. A. - 335
 Androsova, E. B. - 635
 Andrushova, N. V. - 280
 Anisimov, R. I. - 277
 Antropov, L. I. - 390
 Arkhangel'skaya, G. V. - 803
 Artem'ev, V. I. - 500
 Artemova, E. N. - 537
 Artyshova, N. I. - 771
 Asatiani, G. N. - 145
 Azhogin, F. F. - 103

B

Babei, Yu. I. - 509
 Bagaev, S. P. - 719, 790
 Baibakova, V. N. - 507
 Baibarova, E. Ya. - 782
 Bairamov, A. Kh. - 335
 Bakaev, V. V. - 527
 Bala, H. - 588
 Balezin, S. A. - 105
 Barannik, V. P. - 233
 Barkov, A. A. - 193
 Bekoeva, G. P. - 414, 603
 Bel'chikov, V. I. - 520
 Belousov, Yu. N. - 209
 Belova, E. A. - 768
 Belova, V. F. - 777
 Belyaeva, Z. G. - 797
 Berezovskii, L. R. - 483
 Biestek, T. - 612

Blyablin, A. A. - 99
 Boboshko, Z. A. - 520
 Bogdashkina, N. L. - 436
 Bogomolov, D. B. - 705
 Bogoyavlenskaya, N. V. - 117, 795
 Bogoyavlenskii, A. F. - 397
 Bokshitskaya, N. A. - 639
 Bondarenko, V. N. - 120
 Boriskina, N. G. - 49
 Borodina, L. P. - 666
 Bozhko, N. V. - 215
 Braun, E. V. - 377
 Brynza, A. P. - 766, 782
 Budberg, P. B. - 322, 746
 Buler, P. I. - 545
 Burmistr, M. V. - 779

C

Chen, T. Kh. - 233
 Chernov, B. B. - 358, 491, 644
 Chernova, G. P. - 44, 89, 145, 436, 705
 Chernova, L. A. - 253
 Chernykh, L. P. - 219
 Chibirova, F. Kh. - 294
 Chichkin, R. V. - 644
 Chizh, V. A. - 795
 Chukalovskaya, T. V. - 478

D

Dayan, V. M. - 367
 Dembrovskii, M. A. - 18, 294
 Dikii, I. I. - 224, 715
 Dobrolyubov, V. V. - 436
 Dobrov, Yu. V. - 209
 Dolzhanskii, Yu. M. - 99
 Domingues, J. A. - 654
 Dorofeeva, V. N. - 44, 209
 Drugov, P. N. - 530
 Drys, M. - 612
 Dubina, N. M. - 671
 Dubinin, G. N. - 621
 Dudenkov, S. V. - 418

Dushin, Yu. A. - 537
 D'yachenko, L. I. - 99
 D'yakonov, I. A. - 771
 Dzhangirov, N. M. - 356
 Dzhincharadze, G. Kh. - 87

E

Ékilik, G. N. - 627
 Elkina, V. I. - 136
 Éminov, R. G. - 356
 Ermakova, N. A. - 674
 Ermilov, V. A. - 219
 Ermolaeva, N. E. - 639
 Ermoshina, V. V. - 507
 Ershov, N. S. - 332
 Evteeva, G. N. - 116
 Evtukhov, V. I. - 341

F

Faityants, S. A. - 795
 Falicheva, A. I. - 141
 Fandeeva, M. F. - 92
 Fedash, V. P. - 766, 782
 Fedorov, Yu. V. - 251, 253
 Figurnaya, S. V. - 520
 Fishchenko, V. P. - 205
 Flerov, V. N. - 527
 Flis, J. - 421
 Fokin, A. V. - 242
 Fokin, M. N. - 530, 736
 Fomichev, V. G. - 762
 Forostyan, Yu. N. - 505
 Freiman, L. I. - 454

G

Gadasina, L. Yu. - 116
 Galakhov, M. V. - 44
 Galaktionova, N. L. - 751
 Galyautdinova, S. N. - 787
 Gamburg, Yu. D. - 719
 Gelagutashvili, Sh. L. - 258, 260
 Genel', V. A. - 341
 Gerasimenko, Yu. S. - 360, 461

Gerasimov, V. I. - 332
 Gerasyutina, L. I. - 766,
 782
 Ghosh, Phulchand - 255
 Gimadeeva, E. N. - 215
 Glebova, M. A. - 489
 Glushko, I. D. - 520
 Gnatyuk, A. K. - 465
 Gnezdilova, V. I. - 13
 Gochalieva, E. P. - 92
 Gol'dberg, I. M. - 503
 Golovin, V. A. - 139
 Golubev, A. I. - 711
 Gorbachev, A. K. - 212
 Gorodetski, A. E. - 705
 Goryachev, P. T. - 341
 Gozalishvili, E. I. - 258
 Grechnaya, I. Ya. - 222
 Grigor'ev, V. P. - 627
 Grishina, V. A. - 436
 Gromov, A. I. - 313
 Groshaven', E. B. - 392
 Guseinov, M. M. - 390
 Gusev, S. N. - 527
 Guseva, M. I. - 705

I

Ignatenko, P. I. - 630
 Ilalova, R. Kh. - 343
 Il'ina, L. K. - 403
 Ionov, L. B. - 113
 Iossel', Yu. Ya. - 616
 Iremashvili, V. I. - 736
 Isaev, N. I. - 203, 624
 Isaev, V. V. - 527
 Iskhakov, A. K. - 786
 Ivanov, E. G. - 122
 Ivanov, E. S. - 105, 249,
 469, 759
 Ivanova, O. R. - 545
 Izhboldina, V. I. - 751

K

Kalinichenko, V. A. - 436
 Kalinin, A. A. - 270
 Kalmykov, V. V. - 222
 Kaloshina, N. V. - 770
 Kaluzhina, S. A. - 352
 Karlashov, A. V. - 465
 Karyakina, V. A. - 352
 Karyazin, P. P. - 503
 Kasatkin, E. V. - 37
 Kasatkina, I. V. - 44
 Kashcheeva, T. P. - 116
 Kasimov, I. K. - 397
 Kasparova, O. V. - 18,
 442
 Kataev, A. N. - 230
 Katkov, I. N. - 489
 Katser, I. M. - 343

Kazakova, G. V. - 417
 Kechedzhi, T. V. - 520
 Kemen, D. - 13
 Kenina, E. M. - 49
 Keris', L. D. - 384
 Khairudinov, I. R. - 787
 Khaldeev, G. V. - 418,
 664, 680, 774
 Kharchenko, A. E. - 24
 Kharina, I. L. - 332
 Kharitonov, Yu. Ya. - 255
 Kharlamov, Yu. A. - 680
 Kharlamova, T. L. - 227
 Khisameev, G. G. - 408
 Khizhnykov, V. I. - 642
 Khlebnikova, S. F. - 387
 Khokhlov, N. I. - 18
 Khoroshailo, G. P. - 341
 Khromov, S. M. - 57
 Khukhareva, N. N. - 411
 Kichigin, V. I. - 230,
 664
 Kipervas, M. A. - 541
 Kireeva, T. S. - 177
 Kiselev, I. Ya. - 283
 Kiseleva, V. L. - 272
 Kiss, L. - 677
 Klimov, G. G. - 345
 Klochko, A. N. - 203
 Knotkova, D. - 612
 Knyazheva, V. M. - 569
 Kochergin, V. P. - 543
 Kocherov, V. I. - 751
 Koidan, G. N. - 660
 Kol'chevskii, A. K. - 267
 Kolesnichenko, V. N. - 486
 Koloskova, E. F. - 473
 Kolot, V. Ya. - 120
 Kolotyarkin, Ya. M. - 18,
 549, 569
 Komolova, L. F. - 759
 Konovalova, O. V. - 145
 Kon'shina, E. N. - 251
 Konstantinova, E. V. -
 757
 Kornilova, Z. I. - 37
 Koroleva, V. R. - 111,
 512, 660, 783
 Kosareva, M. G. - 666
 Kosinskaya, L. N. - 465
 Kostin, N. A. - 400, 525
 Kostyuchenko, V. G. - 224,
 715
 Koval'chuk, G. Z. - 222
 Kovalenko, V. N. - 489
 Kovarskii, N. Ya. - 277
 Kozhevnikov, A. I. - 31
 Kozhevnikov, V. B. - 569
 Kozhukharov, V. - 612
 Krasovskaya, G. M. - 715
 Kravchenko, N. Ya. - 762
 Kravetski, G. A. - 530

Krivtsov, A. K. - 525
 Kropachev, V. S. - 52
 Kruglikov, S. S. - 377
 Kruglikova, E. S. - 523
 Krupina, E. M. - 689
 Krutikov, P. G. - 375
 Kryakovskaya, N. Yu. -
 317
 Kryuchkova, É. Ya. - 363
 Kryukova, A. A. - 671
 Kuchinskaya, M. M. - 406
 Kudryavtsev, V. N. - 719,
 790
 Kudusov, V. A. - 541
 Kuleshova, N. F. - 360
 Kulikov, A. K. - 671
 Kulikova, O. Yu. - 215
 Kurbanov, F. K. - 786
 Kurbatova, L. A. - 792
 Kurilovich, T. I. - 103
 Kurilovskaya, E. A. -
 768
 Kurmakova, I. N. - 111,
 384, 512, 660, 783
 Kurov, O. V. - 350
 Kushchuk, V. A. - 648
 Kushina, I. D. - 367
 Kushnarenko, A. P. - 621
 Kuslitskii, A. B. - 489
 Kuznetsov, L. P. - 205
 Kuznetsov, V. I. - 436
 Kuznetsov, V. P. - 650
 Kuznetsov, V. V. - 230,
 394, 664, 774
 Kuznetsov, Yu. I. - 73,
 78, 194, 592
 Kuznetsova, E. G. - 37
 Kuznetsova, G. N. - 469
 Kuzub, L. G. - 13
 Kuzub, V. S. - 13, 483
 Kyazimov, A. M. - 108, 356

L

Lantratova, M. Ya. - 807
 Lapchenko, E. P. - 764
 Larikov, L. N. - 122
 Lar'kin, B. M. - 657
 Lazarev, É. M. - 37
 Lazarev, G. E. - 227
 Lazarev, V. A. - 249
 Lazareva, T. A. - 387
 Lebedeva, M. V. - 632
 Ledovskikh, V. M. - 67,
 245, 654, 724
 Leshchenko, S. S. - 740
 Leshchiner, L. N. - 621
 Lesnikov, V. P. - 650
 Levichev, A. N. - 242
 Levin, V. A. - 219
 Litvinenko, V. A. - 343
 Lobzhanidze, V. N. - 132

Lomovtsev, V. I. - 757
 Lozovatskaya, L. P. - 748
 Lubnin, E. N. - 37
 Lukatskii, L. M. - 727
 Lukina, N. B. - 699
 Luk'yanov, V. F. - 328
 Lunina, L. M. - 751
 Lupenko, G. K. - 635
 Lyubetskaya, L. V. - 803

M

Makarov, V. A. - 13, 258, 260, 473
 Makarova, L. L. - 113, 779
 Makeeva, T. V. - 486
 Makovei, G. L. - 111, 384, 512, 660, 783
 Makovskii, R. O. - 759
 Malygina, V. N. - 253
 Mamontov, E. A. - 792
 Mamylikhina, M. V. - 771
 Mandzhgaladze, S. N. - 258, 260
 Manukhina, T. I. - 236, 799
 Marichev, V. A. - 166, 683
 Markova, O. N. - 145, 603
 Marshakov, I. K. - 63, 238
 Martynovskikh, G. P. - 541
 Masyuk, Yu. P. - 465
 Matulis, Yu. Yu. - 287
 Mazanko, A. F. - 209
 Mel'nikov, M. A. - 209
 Merendi, Yu. Ya. - 365
 Meshcheryakova, I. D. - 116, 639
 Metsik, R. É. - 365
 Mikhailov, A. - 151
 Mikhailov, V. I. - 777
 Mikhailovskii, Yu. N. - 83, 87, 184, 430, 575, 699, 740
 Mikhalin, V. M. - 49
 Mil'man, V. M. - 18
 Miloslavskii, A. G. - 535
 Miroshnik, Z. A. - 141
 Mishina, Z. V. - 380
 Modestova, V. N. - 44, 205
 Moisa, V. G. - 13
 Molokanov, V. V. - 322, 746
 Mozgin, V. V. - 120
 Mukhina, M. G. - 52
 Murashova, O. P. - 770
 Mytsak, S. I. - 637

N

Naletov, B. P. - 635
 Nazarov, A. A. - 446
 Nechaev, N. P. - 543
 Nemirov, N. V. - 375
 Neretina, G. V. - 377
 Nikishina, K. A. - 95
 Niz'ev, S. G. - 740
 Nizhnik, I. I. - 512
 Nogin, M. I. - 265
 Novakovskii, V. M. - 1, 37
 Novikova, E. M. - 111, 660
 Novitskii, V. S. - 13
 Nyukhtilina, T. V. - 272

O

Oknin, I. V. - 754
 Okrostsvardze, Z. Sh. - 145
 Oleinik, S. V. - 73
 Omel'yanenko, V. V. - 122
 Opara, B. K. - 530, 736
 Osadchuk, I. P. - 451
 Oshe, E. K. - 317, 608
 Ovsyankin, V. V. - 265
 Ovsyannikov, V. Yu. - 495
 Ozeryanaya, I. N. - 136, 236, 799

P

Pagetti, J. - 583
 Panchenko, Yu. M. - 83
 Papurin, N. M. - 375
 Paramonov, V. A. - 343
 Pashkova, O. A. - 711
 Pautov, V. N. - 635
 Pavlovskii, R. A. - 616
 Pedan, K. S. - 719, 790
 Penyagina, O. P. - 136, 236
 Perelygin, Yu. P. - 274
 Perepelkin, A. V. - 807
 Peretyagin, Yu. V. - 537
 Persiantseva, V. P. - 193
 Perunov, B. V. - 24
 Peshkov, V. V. - 533
 Petrov, L. N. - 451
 Petrov, V. V. - 128
 Petrovskaya, L. A. - 341
 Pigulevskaya, A. G. - 117
 Pinus, A. M. - 251
 Pishin, S. V. - 527
 Pistun, I. P. - 489
 Pitlenko, V. I. - 313, 480
 Plaskeev, A. V. - 442
 Pletnev, M. A. - 113, 779

Plokhotnyuk, E. B. - 411
 Podgornova, L. P. - 78
 Podobae, N. I. - 345
 Podoprikin, M. N. - 533
 Polyakova, R. E. - 807
 Ponizovskii, V. M. - 686
 Ponomarenko, V. I. - 251
 Ponomareva, O. V. - 768
 Popova, I. A. - 343
 Popova, L. I. - 592
 Popova, V. M. - 430, 575
 Porshneva, A. I. - 436
 Poryadchenko, N. E. - 89, 807
 Pospelov, M. V. - 242
 Povetkin, V. V. - 674
 Protsiv, I. M. - 224, 715
 Przewtockz, H. - 588
 Puryaeva, T. P. - 44
 Putina, O. A. - 543
 Puzei, N. V. - 270

R

Rafikova, L. G. - 335
 Rakitskii, A. N. - 89, 807
 Rakoch, A. G. - 530, 736
 Ramishvili, R. - 612
 Razygraev, V. P. - 632
 Reingeverts, M. D. - 764
 Reshetnikov, S. M. - 113, 779
 Revyakin, A. V. - 203
 Riskin, I. V. - 727
 Rodin, N. N. - 205, 325
 Rogozhina, E. P. - 711
 Romanov, V. V. - 233
 Romanushkina, A. E. - 771
 Rozenberg, V. R. - 770
 Rozenfel'd, I. L. - 108, 166, 193, 227, 657
 Rozhko, A. L. - 650
 Ruda, G. I. - 804
 Runova, Z. K. - 177
 Ruzinov, V. L. - 31
 Ryabchenkov, A. V. - 265, 332
 Ryl'nikov, B. S. - 803

S

Sadakov, G. A. - 267
 Sadykhov, F. M. - 356
 Saifullin, R. S. - 408
 Sakharova, M. V. - 639
 Sakharova, N. V. - 99
 Samgina, O. Yu. - 804
 Sannikov, V. I. - 799
 Sapronov, D. P. - 624
 Sarycheva, I. V. - 724
 Sedenkov, A. M. - 483
 Sedov, V. M. - 95

Semenishin, D. I. - 509
 Semenyuk, É. Ya. - 764
 Seryanov, Yu. V. - 406
 Seryshev, G. A. - 762
 Setei, E. - 677
 Sevost'yanov, M. A. - 18
 Shakhovtseva, G. A. - 771
 Shakulashvili, V. G. - 669
 Shamanova, N. D. - 136, 236, 799
 Shapovalov, É. T. - 57, 280, 417
 Shashkov, D. P. - 49
 Shatalov, A. Ya. - 352
 Shchesno, L. P. - 117
 Shein, A. B. - 418, 664, 774
 Sheinina, S. I. - 680
 Sherstobitova, I. N. - 394
 Shevchenko, L. A. - 251
 Shluger, M. A. - 523
 Shtan'ko, V. M. - 215, 503
 Shtukareva, V. B. - 740
 Shtykhno, A. P. - 652
 Shul'gina, E. V. - 503
 Shumilov, V. N. - 203
 Shuvakhina, L. A. - 83
 Shvets, V. A. - 436
 Sidorkina, Yu. S. - 414, 603
 Sirotkin, O. S. - 408
 Sirotkin, S. N. - 411
 Skuratnik, Ya. B. - 328, 727
 Skvortsov, V. G. - 777
 Skvortsova, I. B. - 322, 746
 Slobodyan, Z. V. - 509
 Smagina, G. P. - 105
 Smirnov, V. P. - 804
 Smorodin, A. E. - 390
 Sogomonyan, R. G. - 132
 Sokolov, M. A. - 480
 Sokolov, N. - 612
 Sokolova, T. I. - 575
 Soltovets, M. V. - 328
 Sorokin, V. I. - 461
 Sotnikov, A. I. - 128
 Spelkov, G. P. - 686
 Stenilovskaya, L. A. - 635
 Stepanchenko, V. V. - 630
 Stepanov, I. A. - 616
 Storchak, N. A. - 807
 Stoyanovskaya, T. N. - 473
 Strekalov, P. V. - 31, 87, 151, 177
 Strizhak, G. K. - 253

Sukhotin, A. M. - 313, 480
 Sultanova, Z. B. - 356
 Suntsov, N. V. - 535
 Sverdlov, A. I. - 397
 Svetlov, M. V. - 648
 Svistunova, T. V. - 177
 Syur, A. N. - 418

T

Tarasenko, L. V. - 621
 Tatarinova, O. M. - 335
 Tavadze, L. F. - 145
 Tel'manova, O. N. - 503
 Tembel', V. P. - 520
 Teploukhova, N. A. - 394
 Terent'eva, O. A. - 766
 Tereshchenko, L. N. - 771
 Tikhinski, G. F. - 120
 Timofeeva, E. K. - 283
 Timonin, V. A. - 24, 727
 Timonova, M. A. - 99
 Tkachenko, V. N. - 515
 Tolstaya, M. A. - 52
 Tomashov, N. D. - 44, 89, 145, 209, 322, 436, 478, 603, 705, 746
 Tomashpol'skii, Yu. Ya. - 558
 Torshin, V. B. - 328, 727
 Trefilov, V. I. - 89
 Troquet, M. - 583
 Trufanova, A. I. - 387, 507, 666
 Trusov, G. N. - 92, 363
 Trutneva, L. P. - 624
 Tsallagova, V. S. - 762
 Tsenta, T. E. - 569
 Tsinman, A. I. - 486
 Tskitishvili, M. D. - 260
 Tumanova, T. A. - 49, 770
 Turashev, A. I. - 797
 Tyr, S. G. - 520
 Tyshkevich, V. M. - 122

U

Umutbaev, V. N. - 787
 Ustimenko, M. Yu. - 57
 Ustinskaya, T. N. - 478
 Ustinski, E. N. - 89
 Uzlyuk, M. V. - 253

V

Vagina, N. K. - 635
 Val'syunene, Ya. I. - 403
 Vashchenko, S. V. - 209
 Vasil'ev, M. A. - 224
 Vasil'ev, V. Yu. - 203, 205, 308, 325

Veksler, Yu. G. - 650
 Veliev, M. G. - 390
 Velieva, R. K. - 352
 Verdiev, S. Ch. - 108, 356
 Vereikin, V. I. - 227
 Vinogradov, S. N. - 274
 Vishnevskii, A. M. - 495, 616
 Vladimirov, B. G. - 705
 Volenko, A. P. - 792
 Voronina, T. A. - 411
 Voronova, N. V. - 686
 Vorontsov, E. S. - 533
 Vvedenskii, A. V. - 63, 238

W

Wu Dihn Wo - 31, 184

Y

Yakhvarov, G. I. - 777
 Yakubenko, A. R. - 209
 Yanevskii, G. D. - 372
 Yarlykov, S. S. - 377
 Yarmosh, V. N. - 222
 Yusupov, Yu. Yu. - 108
 Yut, M. K. - 541

Z

Zabludovskii, V. A. - 675
 Zakhar'in, D. S. - 294
 Zakharov, A. I. - 203
 Zakrocimski, T. - 597
 Zalavutdinov, R. Kh. - 705
 Zamaletdinov, I. I. - 454
 Zarina, G. R. - 545
 Zaritskii, V.-I. D. - 367, 637
 Zasl'skaya, M. N. - 151
 Zedginidze, L. N. - 258, 260
 Zeidel, M. - 612
 Zelenskaya, É. G. - 233
 Zemlyankin, V. A. - 537
 Zhabokritskii, V. A. - 807
 Zhelis, Kh. P. - 403
 Zhigacheva, N. I. - 446
 Zhil'tsova, O. A. - 705
 Zhuravel', V. P. - 117, 795
 Zhuravlev, N. L. - 535
 Zimina, T. Yu. - 608
 Zinchenko, N. G. - 414
 Zobov, E. V. - 380
 Zotikov, V. S. - 764, 807
 Zudin, M. V. - 205, 325
 Zvyagintseva, L. N. - 120

PROTECTION OF METALS

Volume 19, Numbers 1-6, 1983

(A translation of Zashchita Metallov)

Volume 19, Number 1

January-February, 1983

Engl./Russ.

A Standard Scientific System of Corrosion-Electrochemical Terms and Concepts. II. Electrochemical Corrosion: Fundamental Electrochemical Concepts — V. M. Novakovskii	1	3
Anodic Protection of Sulfuric Acid Reservoirs at the Tisza Chemical Combine, Hungary — V. S. Kuzub, V. S. Novitskii, V. G. Moisa, D. Kemen, V. A. Makarov, L. G. Kuzub, and V. I. Gnezdilova	13	18
Use of Track Autoradiography in Corrosion Investigations on Boron Alloys — O. V. Kasparova, Ya. M. Kolotyrkin, M. A. Dembrovskii, V. M. Mil'man, N. I. Khokhlov, and M. A. Sevost'yanov	18	24
Present Trends in Corrosion Protection — B. V. Perunov, V. A. Timonin, and A. E. Kharchenko	24	31
Nature of the Corrosion Products Forming on Steel in the Humid Tropical Climate of Vietnam — Wou Din Wui, P. V. Strekalov, A. I. Kozhevnikov, and V. L. Ruzinov	31	40
Photoelectrochemical Formation of Surface Oxides on Titanium — L. V. Kostina, E. G. Kuznetsova, V. M. Novakovskii, E. V. Kasatkin, E. N. Lubnin, E. M. Lazarev, and Z. I. Kornilova	37	47
Behavior of Titanium with a Hydride Layer during Anodic Polarization in Sodium Chloride Solution — V. N. Modestova, N. D. Tomashov, G. P. Chernova, V. N. Dorofeeva, T. P. Puryaeva, M. V. Galakhov, and I. V. Kasatkina	44	55
Influence of Nitriding on the Corrosion and Wear Resistances of Alloys AT3 and AT6 — N. G. Boriskina, E. M. Kenina, T. A. Tumanova, D. P. Shashkov, and V. M. Mikhlin	49	61
Corrosion Losses of Steel ShKh-15 and Bronze Br. OS10-10 under Friction in Water-Organic Solutions — V. S. Kropachev, M. A. Tolstaya, and M. G. Mukhina	52	65
Auger-Spectroscopic Investigation of Surface Layers of Alloy KhN40MDB after Corrosion in Sulfuric Acid — E. T. Shapovalov, S. M. Khromov, and M. Yu. Ustimenko	57	71
Anodic Oxidation of Copper in Dilute Chloride Solutions — A. V. Vvedenskii and I. K. Marshakov	63	79
Synergistic Inhibition of Corrosion of Steel in a Neutral Medium by Mixtures of Organic Nitrogen Compounds with Sodium Nitrite — V. M. Ledovskikh	67	84
Inhibition of Corrosion of Iron in Neutral Water-Dimethylformamide Solutions — Yu. I. Kuznetsov and S. V. Oleinik	73	92
Corrosion and Electrochemical Behavior of Zinc in Phosphate Solutions — Yu. I. Kuznetsov and L. P. Podgornova	78	98
BRIEF COMMUNICATIONS		
Dependence of Quantity of Precipitated Seawater Aerosols and Corrosion Rate of Steel on Wind Conditions in Coastal Regions of the Far Eastern USSR — Yu. M. Panchenko, L. A. Shuvakhina, and Yu. N. Mikhailovskii	83	103
Initial Stage of Corrosion of Steel in a Humid Subtropical Coastal Climate — G. Kh. Dzhincharadze, Yu. N. Mikhailovskii, and P. V. Strekalov	87	107
Corrosion and Electrochemical Properties of Plastic Chromium with Added Platinum and Palladium — N. D. Tomashov, V. I. Trefilov, G. P. Chernova, A. N. Rakitskii, N. E. Poryadchenko, and E. N. Ustinskii	89	109

Corrosion Behavior of Catalysts for Titanium Anodes in Carbonate Electrolytes — G. N. Trusov, E. P. Gochal'eva, and M. F. Fandeeva	92	113
Stress Corrosion Cracking of Austenitic Steels and Alloys in a Field of Ionizing Radiation in Saturated $MgCl_2$ Solution — K. A. Nikishina and V. M. Sedov	95	117
Influence of Annealing on Stress Corrosion Cracking Resistance of VMD10-1 Magnesium Alloy — M. A. Timonova, L. I. D'yachenko, Yu. M. Dolzhanskii, M. B. Al'tman, N. V. Sakharova, and A. A. Blyablin	99	120
Desorption of Hydrogen from Steel 30KhGSA after Pickling in Hydrochloric and Sulfuric Acids — F. F. Azhogin and T. I. Kurilovich	103	124
Influence of Inhibitors on Dissolution of Stressed Steel 30KhGSA in Hydrochloric Acid — E. S. Ivanov, G. P. Smagina, and S. A. Balezin	105	126
Combined Inhibiting Action of Potassium Chromate and Ethanolamines on the Corrosion of Steel in Sodium Chloride Solution — I. L. Rozenfel'd, S. Ch. Verdiev, A. M. Kyazimov, and Yu. Yu. Yusupov	108	129
Anodic Passivation of Nickel in Hydrochloric Acid Solution in the Presence of 2-Substituted Derivatives of Benzimidazole — G. L. Makovei, V. R. Koroleva, I. N. Kurmakova, and E. M. Novikova	111	132
Phenylarsonic Acid as an Inhibitor of Cathodic Hydrogen Evolution of Nickel — S. M. Reshetnikov, L. L. Makarova, M. A. Pletnev, and L. B. Ionov	113	134
Corrosion Resistance of Alloys N7OMF and KhN65MV in Alcoholic Solutions of Hydrogen Chloride — T. P. Kashcheeva, L. Yu. Gadasina, I. D. Meshcheryakova, and G. N. Evteeva	116	137
Improving the Corrosion Resistance of Stainless Steel Tubes by Means of Electropolishing — N. V. Bogoyavlenskaya, V. P. Zhuravel', L. P. Shchesno, and A. G. Pigulevskaya	117	138
Use of Backscattered Helium Ions to Study the Oxydation of Beryllium — V. N. Bondarenko, L. N. Zvyagintseva, V. Ya. Kolot, V. V. Mozgin, and G. F. Tikhinskii	120	141
High-Temperature Oxidation Resistance of Alloys of the Ni_3Ti-Ni_3Al System — L. N. Larikov, V. V. Omel'yanenko, and V. M. Tyshkevich	122	143
Volume Relations in Aluminum Coatings — E. G. Ivanov	124	146
Interaction of Solid Iron with Adhesive Oxides in Fused Enamel — A. I. Sotnikov and V. V. Petrov	128	150
Viscosity and Protective Capacity of Temporary Vitreous Coatings — V. N. Lobzhanidze and R. G. Sogomonyan	132	155
Corrosion-Electrochemical Behavior of Kovar in Fused Alkali Metal Carbonates — O. P. Penyagina, I. N. Ozeryanaya, N. D. Shamanova, and V. I. Elkina	136	159
Electrolytic Formation of Composite Zinc Coatings from Complex Electrolytes — I. A. Abdullin and V. A. Golovin	139	161
Role of Buffer Additives in Intensifying Electrolytic Zinc Plating — Z. A. Miroshnik and A. I. Falicheva	141	164
METHODS OF CORROSION-ELECTROCHEMICAL INVESTIGATION		
Use of Accelerated Potentiokinetic and Metallographic Methods to Investigate the Liability of Steel ÉP-667 to Intercrystallite Corrosion — N. D. Tomashov, O. N. Markova, L. F. Tavazde, G. P. Chernova, O. V. Konovalova, G. N. Asatiani, and Z. Sh. Okrostsvardidze	145	168

Volume 19, Number 2

March-April, 1983

Piezoelectric Microbalance Method and Investigation of Corrosion Processes in Metals — P. V. Strekalov, A. A. Mikhailov, and M. N. Zasl'skaya . .	151	179
Dependence of Potential of a Freshly Formed Metal Surface on Exposure Time in an Electrolyte Solution — I. L. Rozenfel'd, K. I. Afanas'ev, and V. A. Marichev	166	196
Influence of Temperature on the Corrosion Resistance and Electrochemical Behavior of Titanium and Titanium Alloys in an $H_2SO_4-HCl-HBr$ Solution	172	205
Structure and Corrosion Behavior of Chromium-Nickel Alloys of Type KhN60 in Nitrate-Fluoride Solutions — T. V. Svistunova, T. S. Kireeva, and Z. K. Runova	177	212

Kinetics of Atmospheric Corrosion of Steel and Zinc in a Tropical Climate: Results of Five-Year Tests — P. V. Strekalov, Wu Dihn Wo, and Yu. N. Mikhailovskii	184 220
Heteroalkylated Lower Amines: Volatile Corrosion Inhibitors — V. P. Persiantseva, Yu. I. Kuznetsov, and I. L. Rozenfel'd	193 231
Anodic Hydrogen Absorption by Zirconium — A. A. Barkov	199 238
BRIEF COMMUNICATIONS	
First Stability Threshold of Amorphous Alloys — V. Yu. Vasil'ev, N. I. Isaev, V. N. Shumilov, A. N. Klochko, A. I. Zakharov, and A. V. Revyakin	203 243
Use of a Beta Spectrometer to Determine the Kinetics of Solution of Phosphorus from Amorphous Alloys — N. N. Rodin, V. Yu. Vasil'ev, M. B. Zudin, V. P. Fishchenko, and L. P. Kuznetsov	205 246
Influence of Added Yttrium and Palladium on the Stability of Titanium Cathodes in the Electrolysis of Sodium Chloride Solutions — V. N. Modestova, N. D. Tomashov, Yu. N. Belousov, A. R. Yakubenko, A. F. Mazanko, M. A. Mel'nikov, V. N. Dorofeeva, Yu. V. Dobrov, and S. V. Vashchenko	209 250
Thermodynamics of Oxidation-Reduction Equilibria in the TiN-H ₂ O System — A. K. Gorbachev	212 253
Corrosion Behavior of Iron-Chromium-Nickel Alloys in Relation to the Surface Treatment — E. N. Gimadeeva, O. Yu. Kulikova, N. V. Bozhko, and V. M. Shtan'ko	215 257
Corrosion Resistance of Chromium-Molybdenum Steels in Chloride Solutions — L. P. Chernykh, V. A. Ermilov, and V. A. Levin	219 261
Corrosion Resistance of Boron and Boron-Copper Steels — G. Z. Koval'chuk, V. V. Kalmykov, V. N. Yarmosh, and I. Ya. Grechnaya	222 264
The Role of Hydrogen in Stress Corrosion Cracking of Steels in Chloride Solutions — I. I. Dikii, I. M. Protsiv, V. G. Kostyuchenko, and M. A. Vasil'ev	224 267
Corrosion of High-Alloy Materials Undergoing Friction — T. L. Kharlamova, I. L. Rozenfel'd, G. E. Lazarev, K. I. Afanas'ev, and V. I. Vereikin ..	227 270
Frequency Dependence of Impedance of Iron Electrode in Sulfuric Acid Solution — V. I. Kichigin, V. V. Kuznetsov, and A. N. Kataev	230 274
Influence of Chemical Oxidation and Parkerization on the Corrosion-Fatigue Resistance of Steel — É. G. Zelenskaya, V. P. Barannik, V. V. Romanov, and T. Kh. Chen	233 277
Influence of Alloying Additives on the Corrosion of Iron-, Nickel-, and Titanium-Based Alloys in Fused Alkali-Metal Carbonates — N. D. Shamanova, I. N. Ozeryanaya, T. I. Manukhina, and O. P. Penyagina	236 280
Thermodynamics and Kinetics of Corrosion of Copper in Dilute Chloride Solutions and Desalinated Water — A. V. Vvedenskii and I. K. Marshakov	238 282
Structures and Protective Capacities of Organic Corrosion Inhibitors. II. Alkylethylenediamines and Quaternary Ammonium Salts — A. V. Fokin, M. V. Pospelov, and A. N. Levichev	242 287
Goal-Directed Development of Heteropolyfunctional Inhibitors of Acid Corrosion — V. M. Ledovskikh	245 290
Influence of Structure of Mannich Bases, Based on Cyclopenten-2-ylphenols, on Their Protective Properties as Corrosion Inhibitors — E. S. Ivanov and V. A. Lazarev	249 294
Influence of Certain By-Products of Toluylenediisocyanate Production on the Corrosion of Carbon Steel in Acids — V. I. Ponomarenko, A. M. Pinus, E. N. Kon'shina, Yu. V. Fedorov, and L. A. Shevchenko	251 297
Influence of Inhibitor-Regulator on Pickling of Boiler Tubes — M. V. Uzlyuk, Yu. V. Fedorov, V. N. Malygina, G. K. Strizhak, and L. A. Chernova	253 299
Use of Calcium Hydroxide to Prevent Corrosion of Carbon Steels — A. P. Akol'zin, Phulchand Ghosh, and Yu. Ya. Kharitonov	255 302
Influence of Temperature of Industrial MnSO ₄ Solution on Electrochemical Characteristics of Certain Steels — Sh. L. Gelagutashvili, S. N. Mandzhgaladze, V. A. Makarov, É. I. Gozalishvili, and L. N. Zedginidze	258 304

Influence of Alloying Elements on the Anodic Protection Parameters of Stainless Steel in an Acid Solution of Manganese Sulfate — Sh. L. Gelagutashvili, S. N. Mandzhgaladze, V. A. Makarov, M. D. Tskitishvili, and L. N. Zedginidze	260 307
Method of Protection of Industrial Equipment from Coating Deposition during Chemical Nickel Plating — A. V. Ryabchenkov, V. V. Ovsyankin, M. I. Nogin, and L. N. Alekseeva	265 312
Anodic Protection of Reactor Bath for Chemical Nickel Plating — G. A. Sadakov and A. K. Kol'chevskii	267 314
Effectiveness of Chemical Nickel Plating — N. V. Puzei and A. A. Kalinin ...	270 317
Electrolytic Lead Plating from a Perchlorate Electrolyte — V. L. Kiseleva and T. V. Nyukhtilina	272 320
Kinetics of Electrochemical Deposition of Palladium-Indium Alloy — S. N. Vinogradov and Yu. P. Perelygin	274 322
The Nature of the Potential Oscillations in the Electropolishing of Niobium in Mixtures of Sulfuric and Hydrofluoric Acids — R. I. Anisimov and N. Ya. Kovarskii	277 325
Electrochemical Method of Elucidating the Liability of Ferrite Steels 15Kh25T to Intercrystallite Corrosion — E. T. Shapovalov and N. V. Andrushova	280 329
A Laboratory Apparatus for Investigating Electrochemical Corrosion and Assessing the Protective Properties of Lubricants — I. Ya. Kiselev and E. K. Timofeeva	283 332

Volume 19, Number 3

May-June, 1983

Theoretical and Applied Problems in Electrolytic Metallurgy — Yu. Yu. Matulis.	287 355
Use of Mössbauer Spectroscopy in Corrosion-Electrochemical Research — M. A. Dembrovskii, D. S. Zakhar'in, and F. Kh. Chibirova	294 365
Causes of the Different Passivabilities of Amorphous Alloys of Iron — V. Yu. Vasil'ev.	308 382
Ellipsometric Investigation of Passivating Films on Cobalt in Acetate Solutions — V. I. Pitlenko, A. M. Sukhotin, and A. I. Gromov	313 388
Influence of Stoichiometry of Surface Oxides on Effectiveness of Protection of Metals by Inhibitors — E. K. Oshe and N. Yu. Kryakovskaya.	317 393
BRIEF COMMUNICATIONS	
Electrochemical Behavior of an Amorphous Titanium-Based Alloy after Various Annealing Procedures — N. D. Tomashov, I. B. Skvortsova, P. B. Budberg, V. V. Molokanov, and S. P. Alisova	322 398
Passivability of Amorphous Alloys with Various Phosphorus Contents — V. Yu. Vasil'ev, M. V. Zudin, and N. N. Rodin.	325 401
Hydrogen Absorption by a Titanium Alloy during Its Stress Corrosion Cracking in Sodium Chloride Solution — Ya. B. Skuratnik, V. F. Luk'yanov, M. V. Soltovets, and V. B. Torshin.	328 404
Electrochemical Methods of Determining the Liability of Chromium Steels to Pitting Corrosion in Solutions of Chlorides — A. V. Ryabchenkov, V. I. Gerasimov, I. L. Kharina, and N. S. Ershov	332 408
Anodic Solution of Transition-Metal Carbides at High Current Densities — N. A. Amirkhanova, L. G. Rafikova, and O. M. Tatarinova.	335 412
Anodic Solution of Aluminum in a Neutral Medium in the Presence of Inhibitors — A. Kh. Bairamov.	338 415
Heat Treatment and Corrosion Resistance of Chromized Steel Strip — V. A. Genel', P. T. Goryachev, V. I. Evtukhov, L. A. Petrovskaya, and G. P. Khoroshailo.	341 419
Influence of Chromate Film on Corrosion Resistance of Chromized Sheet Steel — V. A. Paramonov, R. Kh. Ilalova, I. A. Popova, I. M. Katser, and V. A. Litvinenko	343 421
Influence of Evolved Hydrogen on the Corrosion of Low-Carbon Steels in Acid Sulfate Solutions — N. I. Podobaeu and G. G. Klimov.	345 424
Overvoltage of Hydrogen Evolution in Local Corrosion — O. V. Kurov.	350 428

Theoretical Distribution of Corrosion in a Zone of Variable Temperature — S. A. Kaluzhina, V. A. Karyakina, and A. Ya. Shatalov.	352	430
Corrosion of Steel St3 in Recycled Water — A. M. Kyzimov, R. K. Velieva, S. Ch. Verdiev, F. M. Sadykhov, N. M. Dzhangirov, R. G. Eminov, and Z. B. Sultanova.	356	434
Possibility of Formation of Insoluble Substances on Metal Surfaces Corroding in Seawater — B. B. Chernov.	358	436
Relation between Polarization Resistance and Corrosion Rate of Steel in Natural Waters — Yu. S. Gerasimenko and N. F. Kuleshova	360	438
Behavior of a Lead Dioxide Anode in Slightly Mineralized Water — É. Ya. Kryuchkova and G. N. Trusov	363	442
Behavior of Stainless Steels in Conditions Simulating the Production of Saturated Dicarboxylic Acids by Destructive Oxidation of Kerogen with Nitric Acid — Yu. Ya. Merendi and R. É. Metsik.	365	444
Structural Materials for Reaction Unit for Synthesis of Lower Carboxylic Acids — V.-I. D. Zaritskii, I. D. Kushina, and V. M. Dayan	367	447
Corrosion of Metals in the Electrode Groups of Electrode Water Heaters — G. D. Yanevskii.	372	453
The State of the Surface of Steel 16GS after Various Chemical Treatments — P. G. Krutikov, N. V. Nemirov, and N. M. Papurin	375	455
Improving the Corrosion Resistance of Foil-Coated Dielectrics — S. S. Kruglikov, E. V. Braun, S. S. Yarlykov, and G. V. Neretina	377	458
Investigation of a Bipolar Coating-Metal System — E. V. Zobov and Z. V. Mishina.	380	461
Influence of Substituent in Imidazole Ring on Corrosion-Electrochemical Behavior of Iron — G. L. Makovei, L. D. Keris', and I. N. Kurmakova.	384	465
Retardation of Corrosion of Copper in Neutral Media by Ionogenic Nitroaromatic Derivatives — A. I. Trufanova, T. A. Lazareva, and S. F. Khlebnikova.	387	468
Suppression of Sulfate-Reducing Bacteria by Cyclic Compounds of the Acetylene Series — A. E. Smorodin, N. M. Agaev, M. M. Guseinov, L. I. Antropov, M. G. Veliev, and A. V. Allakhverdova.	390	471
Improving the Protective Properties of Sodium Silicate by Adding Hydrazine Hydrate — A. P. Akol'zin and E. B. Groshaven'.	392	473
Influence of Inhibitor PGU-2 on Acid Pickling and Hydrogen Absorption of Steels — I. N. Sherstobitova, N. A. Teploukhova, and V. V. Kuznetsov.	394	475
Electrodeposition of Copper and Nickel Coatings on Anodically Oxidized Steel — A. I. Sverdlov, A. F. Bogoyavlenskii, and I. K. Kasimov.	397	479
Influence of Current Pulse Repetition Rate on Throwing Power of Certain Electrolytes — N. A. Kostin.	400	482
Coprecipitation of Boron and Iron by Reduction by Borohydride — Kh. P. Zhelis and Ya. I. Val'syunene.	403	484
Anodic Phosphate Coating of Cobalt — Yu. V. Seryanov, L. K. Il'ina, and M. M. Kuchinskaya.	406	487
Preparation and Properties of Phosphate Coatings with Included Particles — O. S. Sirotkin, R. S. Saifullin, and G. G. Khisameev	408	490
Some Properties of Electrolytes for Electropolishing Iron-Nickel Alloys — S. N. Sirotkin, N. N. Khukhareva, T. A. Voronina, and E. B. Plokhotnyuk.	411	492
ELECTROCHEMICAL METHODS IN CORROSION RESEARCH		
Rapid Potentiostatic Method of Determining Inter-crystallite Corrosion Tendency in Alloys of the 06KhN28MDT Type — Yu. S. Sidorkina, G. P. Bekoeva, and N. G. Zinchenko	414	496
Device for Automatic Maintenance of Magnesium Chloride Concentration in Tests for Stress Corrosion Cracking — É. T. Shapovalov and G. V. Kazakova	417	499
Range of Applicability of the Stern-Geary Equation in Machine Computation of Corrosion Rates from Polarization Measurements — S. V. Dudenkov, A. B. Shein, G. V. Khaldeev, and A. N. Syur.	418	500

Current Trends in Research on Stress Corrosion Cracking of Metals — J. Flis.....	421	515
Mechanism of Anodic Solution and Corrosion of Iron in Oxygen-Saturated Acid Electrolytes — Yu. N. Mikhailovskii and V. M. Popova.....	430	526
Influence of Copper on Corrosion and Electrochemical Behavior of Ingot Steel 90Kh28MFTAL in Sulfuric Acid — G. P. Chernova, N. L. Bogdashkina, N. D. Tomashov, V. A. Kalinichenko, V. V. Dobrolyubov, V. A. Grishina, V. I. Kuznetsov, A. I. Porshneva, and V. A. Shvets.....	436	534
Influence of Plastic Deformation on the Solution of Iron in Sulfuric Acid — O. V. Kasparova and A. V. Plaskeev.....	442	541
Enhancing the Stress Corrosion Cracking Resistance of High-Strength Steel Kh13 — N. I. Zhigacheva and A. A. Nazarov.....	446	546
Corrosion Properties of Freshly Formed Surfaces of Carbon Steels in a Neutral Medium — L. N. Petrov and I. P. Osadchuk.....	451	552
Modeling Pitting on Stainless Steel with the Aid of a Completely Activated Electrode — I. I. Zamaletdinov and L. I. Freiman.....	454	556
Relation between the Polarization Resistance at the Corrosion Potential and the Corrosion Rate under Cathodic Protection — Yu. S. Gerasimenko and V. I. Sorokin.....	461	565
Influence of Process Parameters on Oxide Coating Thickness in Anodization of Aluminum Alloy — A. V. Karlashov, L. N. Kosinskaya, Yu. P. Masyuk, and A. D. Gnatyuk.....	465	570
Stress Corrosion Cracking and Inhibition of High-Strength Steel 30KhGSA in Acid Sulfate Media — E. S. Ivanov and G. N. Kuznetsova.....	469	574
Use of Atomic-Absorption Flame Determination of Iron, Chromium, and Nickel in Corrosion-Electrochemical Research — V. A. Makarov, T. N. Stoyanovskaya, and E. F. Koloskova.....	473	579
BRIEF COMMUNICATIONS		
Electrochemical and Corrosion Behavior of the Intermetallides Ti ₂ Ni and TiNi in Neutral and Acid Sulfate Solutions — N. D. Tomashov, T. N. Ustinskaya, and T. V. Chukalovskaya.....	478	584
Capacitance of a Passive Cobalt Electrode — V. I. Pitlenko, A. M. Sukhotin, and M. A. Sokolov.....	480	587
Nature of the Oxide Film on Titanium in Nitric Acid Containing Fluorides — A. M. Sedenkov, V. S. Kuzub, and L. R. Berezovskii.....	483	589
Influence of Hydrogen Sulfide on Pitting Corrosion of Stainless Steels — A. I. Tsinman, V. N. Kolesnichenko, and T. V. Makeeva.....	486	592
Influence of Aluminum Metallization Coatings on the Corrosion Fatigue of Steel — I. N. Katkov, I. P. Pistun, A. B. Kuslitskii, M. A. Glebova, and V. N. Kovalenko.....	489	596
A Method of Revealing Electrochemical Inhomogeneities on the Surfaces of Electrodes — B. B. Chernov and V. Yu. Ovsyannikov.....	491	598
Electrocorrosion of Ships' Hulls — A. M. Vishnevskii.....	495	602
Anodic Protection of Carbon Steel in Alkali Aluminate Solutions — V. I. Artem'ev.....	500	607
Electrochemical Polishing of Turbine Compressor Blades Made of Heat-Resistant Stainless Steels — O. N. Tel'manova, P. P. Karyazin, V. M. Shtan'ko, E. V. Shul'gina, and I. M. Gol'dberg.....	503	610
Configuration Dependence of the Inhibiting Effect of Bipyridines and Their Hydroderivatives — Yu. N. Forostyan.....	505	612
Retarding Influence of Composition and Structure of Ionogenic Nitroaromatic Derivatives on the Corrosion of Zinc in Neutral Aqueous Solutions — A. I. Trufanova, V. N. Baibakova, and V. V. Ermoshina.....	507	614

Influence of Compounds of Transition Metals with Benzotriazole on Corrosion and Corrosion-Fatigue Failure of Medium-Carbon Chromium Steel — Yu. I. Babei, Z. V. Slobodyan, and D. I. Semenishin.....	509	617
Influence of 2-Alkylbenzimidazoles on the Corrosion-Electrochemical Behavior of Iron in Hydrochloric Acid — G. L. Makovei, V. R. Koroleva, I. N. Kurmakova, and I. I. Nizhnik.....	512	620
Use of a Model to Investigate the Surface Distribution of Electrochemical Corrosion — V. N. Tkachenko.....	515	623
Comparative Characteristics of Corrosion Inhibitors Developed and Produced in the USSR and the Socialist Countries. The Attempt to Use Inhibitors in the Pickling of PT-3V Titanium Alloy — S. G. Tyr, Z. A. Boboshko, I. D. Glushko, T. V. Kechedzhi, S. V. Figurnaya, V. I. Bel'chikov, and V. P. Tembel'.....	520	629
Microdistribution of Metals Electrodeposited in Chromium-Plating Electrolytes — M. A. Shluger and E. S. Kruglikova.....	523	632
Possibility of Using a Pulsed Current to Obtain Lustrous Zinc Coatings — N. A. Kostin and A. K. Krivtsov.....	525	634
Causes of Reduced Efficiency of Trilonate Chemical Copper-Plating Solutions — S. V. Pishin, V. V. Bakaev, V. V. Isaev, V. N. Flerov, and S. N. Gusev.....	527	636
Conductivity of Oxide Films Formed by High-Temperature Oxidation on Zirconium and Hafnium — A. G. Rakoch, B. K. Opara, G. A. Kravetskii, M. N. Fokin, and P. N. Drugov.....	530	639
Influence of Reduced Air Pressure on Growth Rate of Interference-Colored Oxide Films on Titanium VT-1 — V. V. Peshkov, M. N. Podoprikin, and E. S. Vorontsov.....	533	642
Influence of Alloying with Nickel on the Oxidation of Titanium in Sulfur-Containing Atmospheres — N. V. Suntsov, A. G. Miloslavskii, and N. L. Zhuravlev.....	535	644
Thermodynamic Analysis of Interaction of Austenitic Chromium-Nickel Steels with Impurities from an Inert Atmosphere — Yu. A. Dushin, Yu. V. Peretyagin, E. N. Artemova, and V. A. Zemlyankin.....	537	646
Corrosion of Nickel and Its Alloys in a Mixture of Oxygen and Hydrogen Fluoride at Elevated Temperature — V. A. Kudusov, M. A. Kipervas, M. K. Yut, and G. P. Martynovskikh.....	541	650
Gas Corrosion of Metals in Titanium Tetrachloride — V. P. Kochergin, N. P. Nechaev, and O. A. Putina.....	543	652
Influence of Atmospheric Humidity on the Rate of Oxidation of Iron Under a Layer of Fused Vitreous Enamel — P. I. Buler, O. R. Ivanova, and G. R. Zarina.....	545	654

Mechanism of Anodic Solution of Homogeneous and Heterogeneous Metallic Materials — Ya. M. Kolotyrkin.....	675
Problems and Prospect for Auger Spectroscopy in Corrosion and Electrochemical Research — Yu. Ya. Tomashpol'skii.....	686
X-Ray Photoelectron Investigation of the State of the Surface of Molybdenum Polarized in Various Ranges of Potential — V. B. Kozhevnikov, T. E. Tsenta, V. M. Knyazheva, and Ya. M. Kolotyrkin.....	699
Mechanism of Retardation of Corrosion of Iron by Oxygen-Containing Inhibitors of the Oxidizing Type: Chromates — Yu. N. Mikhailovskii, V. M. Popova, and T. I. Sokolova.....	707
Inhibition of Metallic Corrosion in an Acid Medium by Means of Phosphonium Salts — M. Troquet and J. Pagetti.....	717
Secondary Inhibition of Acid Corrosion of Carbon Steels by Dibenzylsulfoxide — H. Przewtockz and H. Bala.....	722

Inhibition of Pitting Corrosion of Aluminum by Sodium Phenylanthranilate - Yu. I. Kuznetsov and L. I. Popova	592	727
Penetration of Electrolytic Hydrogen into Iron and Steel and Its Influence on the Mechanical Properties of the Metal: The Present State and Future Prospects of Research - T. Zakroczimski.	597	733
Accelerated Electrochemical Method of Determining the Liability of Alloys of Type 23-28 to Inter-crystallite Corrosion - N. D. Tomashov, O. N. Markova, Yu. S. Sidorkina, and G. P. Bekoeva.	603	740
Defect Formation in Surface Oxides during High-Temperature Oxidation of Copper - E. K. Oshe and T. Yu. Zimina	608	745
Atmospheric Corrosion of Metallic Systems. V. Identification of the Chemical Compounds in the Corrosion Products of Zinc - T. Biestek, M. Drys, N. Sokolov, D. Knotkova, R. Ramishvili, V. Kozhukharov, and M. Zeidel	612	750
Electrocorrosion of Metals, Caused by Induction Processes - R. A. Pavlovskii, A. M. Vishnevskii, Yu. Ya. Iossel', and I. A. Stepanov	616	754
BRIEF COMMUNICATIONS		
Corrosion Resistance and Mechanical Properties of Alloy D16 after Diffusion Zinc Coating - G. N. Dubinin, A. P. Kushnarenko, L. N. Leshchiner, and L. V. Tarasenko	621	759
Kinetics of Corrosion Processes on Single Crystals of Magnesium Alloys - L. P. Trutneva, N. I. Isaev, and D. P. Sapronov.	624	762
Nature of the Passivation of Nickel in Lithium Perchlorate Solutions - G. N. Ékilik and V. P. Grigor'ev.	627	765
Electrochemical Investigation of Zinc Chalcogenides Obtained by Reactive Diffusion - P. I. Ignatenko and V. V. Stepanchenko.	630	768
Influence of Certain Secondary Reactions on Redox Potential and Corrosion Processes in Media Containing Nitric Acid - V. P. Razygraev and M. V. Lebedeva	632	771
Influence of Solution Potential on Surface Roughness of Al and Its Alloys in NaOH Solution - V. N. Pautov, G. K. Lupenko, E. B. Androsova, L. A. Stenilovskaya, B. P. Naletov, and N. K. Vagina.	635	774
Corrosion of Certain Steels in Diethyleneglycol Dimethyl Ether and Its Aqueous Solutions - V. I. D. Zaritskii and S. I. Mytsak	637	776
Corrosion of High-Alloy Steels and Alloys in Chlorosilane Synthesis Media - I. D. Meshcheryakova, N. A. Bokshitskaya, N. E. Ermolaeva, and M. V. Sakharova	639	778
Corrosion of Large-Diameter Underground Pipelines in the Boggy Taiga of Central Western Siberia - V. I. Khizhnyakov	642	781
Mathematical Model of Corrosion Current Distribution on Surface of Welded Joint - B. B. Chernov and R. V. Chichkin	644	784
Heat Resistance, Thermal Stability, and Corrosion of Alloy VT5L Microalloyed with Rare-Earth Metals - M. V. Svetlov and V. A. Kushchuk	648	788
Influence of Heat Treatment in Argon in Heat Resistance of Heat-Resistant Alloy ZhS6U - Yu. G. Veksler, V. P. Kuznetsov, V. P. Lesnikov, and A. L. Rozhko.	650	790
Influence of Cold Deformation on Oxidation Proneness of Steel 12Kh18N10T - V. I. Alimov and A. P. Shtykhno	652	792
Development of Combined Inhibitors of Acid Corrosion of Steel, Based on Mosto (Sugar Refining By-Product from Cuba) and Anion-Active Surfactants - V. M. Ledovskikh and J. A. Domingues	654	794
Theory of "Dangerous" Corrosion Inhibitors - B. M. Lar'kin and I. L. Rozenfel'd Hexaalkyltriamidophosphazohydride Hydrochlorides: Inhibitors of Acid Corrosion - G. L. Makovei, V. R. Koroleva, I. N. Kurmakova, E. M. Novikova, and G. N. Koidan	657	797
Adsorption of PGU-1 Inhibitor during Corrosion of Steel Under Stress - A. B. Shein, V. I. Kichigin, G. V. Khaldeev, and V. V. Kuznetsov.	660	801
Retardation of Corrosion of Zinc in Neutral Media by Ionogenic Aromatic Nitro Derivatives - A. I. Trufanova, M. G. Kosareva, and L. P. Borodina	664	805
Field Corrosion Tests on Corrosion-Proofed Fitters' Tools - V. G. Shakulashvili	666	808
Characteristics of Some Electrolytic Cadmium-Plating and Zinc-Plating Electrolytes for Depositing a Wide Range of Coating Thicknesses - N. M. Dubina, A. A. Kryukova, and A. K. Kulikov	669	811
	671	813

Structure and Properties of Bismuth Deposited from an Electrolyte Containing Trilon-8 - V. V. Povetkin and N. A. Ermakova.....	674	816
Influence of Pulsed Current on Texture and Properties of Nickel Coatings - V. A. Zabludovskii	675	818
A Sample Cell for Continuous Measurement of Corrosion Rate with Oxygen Depolarization - L. Kiss and E. Setei	677	820
ELECTROCHEMICAL METHODS IN CORROSION RESEARCH		
Computer Analysis of Polarization Curves - Yu. A. Kharlamov, S. I. Sheinina, and G. V. Khaldeev	680	823
Methodological Recommendations on Measurement of Crack Length and Growth Rate in Stress Corrosion Cracking - V. A. Marichev	683	826
Centrifugal Determination of Adhesion of Protective Coatings to a Steel Substrate - V. M. Ponizovskii, G. P. Spelkov, and N. V. Voronova	686	829

Volume 19, Number 6

November-December, 1983

Corrosion-Mechanical Wear: Nature, Characteristics, and Methods of Prevention - E. M. Krupina.....	689	851
Activation of Anodic Solution of Iron and Its Passivation in Solutions Containing Hydrogen Peroxide - Yu. N. Mikhailovskii and N. B. Lukina.....	699	864
Electrochemical and Corrosion Behavior of Titanium Surface-Alloyed with Palladium by Ion Implantation - N. D. Tomashov, M. I. Guseva, G. P. Chernova, A. E. Gorodetskii, B. G. Vladimirov, O. A. Zhil'tsova, D. B. Bogomolov, and R. Kh. Zalavutdinov.....	705	872
Corrosion of Aluminum Alloys in Agricultural Installations - E. P. Rogozhina, O. A. Pashkova, and A. I. Golubev.....	711	879
Role of the Hydrogen Factor in the Development Stage of a Stress Corrosion Crack - I. I. Dikii, I. M. Protsiv, G. M. Krasovskaya, S. N. Alekseev and V. G. Kostyuchenko.....	715	885
Mechanism of Hydrogen Absorption by Steel in Electrodeposition of Zinc from Zincate Electrolytes with Organic Brighteners - K. S. Pedan, S. P. Bagaev, V. N. Kudryavtsev, and Yu. D. Gamburg.....	719	889
Inhibiting Properties of Mixtures of Cation-Active Surfactants with Organic Sulfo and Carboxylic Acids in the Acid Corrosion of Steel - V. M. Ledovskikh and I. V. Sarycheva.....	724	895
Protection of Metals from Electrocorrosion by Means of Oriented Electrodes - I. V. Riskin, Ya. B. Skuratnik, L. M. Lukatskii, V. B. Torshin, and V. A. Timonin.....	727	899
Some Thermodynamic and Kinetic Laws of the High-Temperature Oxidation of Metals - A. G. Rakoch, B. K. Opara, M. N. Fokin, and V. I. Iremashvili.....	736	909
Use of Radiation-Modified Polyethylene Strips to Protect Oil and Gas Pipes from Corrosion - S. G. Niz'ev, V. V. Agafonov, V. B. Shtukareva, Yu. N. Mikhailovskii, and S. S. Leshchenko.....	740	914
BRIEF COMMUNICATIONS		
Electrochemical Characteristics of Some Multicomponent Amorphous Titanium-Based Alloys - N. D. Tomashov, I. B. Skvortsova, S. P. Alisova, V. V. Molokanov, and P. B. Budberg.....	746	921
Influence of Silicon on the Stability of the Grain Boundaries of Hardened Austenitic Chromium-Nickel Steels in Strong Oxidizing Media - L. P. Lozovatskaya.....	748	923
Influence of Heating and Quenching in an Atmosphere of Dissociated Ammonia on the Corrosion Resistance of Stainless Steels - N. L. Galaktionova, V. I. Kocherov, V. I. Izhboldina, and L. M. Lunina.....	751	926
Corrosion of Iron under Cathodic Polarization in Sulfuric Acid Solution - I. V. Oknin.....	754	929

Corrosion of Low-Nickel and Nickel-Free Stainless Steels in Concentrated Nitric Acid with Hydrofluoric Acid or Chloride Ions — E. V. Konstantinova and V. I. Lomovtsev.....	757	933
Surface of Alloy 36NKhTYu after Etching in Solutions of Nitric Acid Containing Fluoride — E. S. Ivanov, L. F. Komolova, and R. D. Makovskii.....	759	935
Corrosion of Pt-Ir Alloys in Solutions of Perchloric and Hydrochloric Acids at High Potential — V. G. Fomichev, G. A. Seryshev, V. S. Tsallagova, and N. Ya. Kravchenko.....	762	939
Corrosion of Metals and Alloys in Tetrafluoroboric Acid — — V. S. Zotikov, E. P. Lapchenko, M. D. Reingeverts, and E. Ya. Semenyuk.....	764	941
Corrosion of Steel in the Dimethylformamide-Carbon Tetrachloride System — A. P. Brynza, L. I. Gerasyutina, V. P. Fedash, and O. A. Terent'eva.....	766	943
Corrosion Resistance of Stainless Steels in Polyvinyl Chloride Production — O. V. Ponomareva, E. A. Kurilovskaya, and E. A. Belova.....	768	945
Corrosion Resistance of Metallic Materials in the Production of Tetrachlordiane — T. A. Tumanova, V. R. Rozenberg, N. V. Kaloshina, and O. P. Murashova.....	770	947
Choice of Structural Material for Allyl Chloride Epoxidation Reactor — A. E. Romanushkina, G. A. Shakhovtseva, L. N. Tereshchenko, M. V. Mamylikhina, I. A. D'yakonov, and N. I. Artysheva.....	771	948
Corrosion-Electrochemical Behavior of Elastically Deformed Steel in Sulfuric Acid Electrolytes Containing Halide Ions — A. B. Shein, G. V. Khaldeev, and V. V. Kuznetsov.....	774	952
Effect of Monoethanolammonetetraborateammonium on the Corrosion and Corrosion Fatigue of Steel 10 — G. I. Yakhvarov, V. G. Skvortsov, V. I. Mikhailov, and V. F. Belova.....	777	955
Inhibition of Electrochemical Corrosion Reactions of Nickel by Quaternary Ammonium Salts in Acidic Chloride Solutions — S. M. Reshetnikov, L. L. Makarova, M. A. Pletnev, and M. V. Burmistr.....	779	957
Polyethylenepolyamine: A Corrosion Inhibitor for Steel in Hydrochloric Acid — A. P. Brynza, L. I. Gerasyutina, V. P. Fedash, and E. Ya. Baibarova.....	782	961
Corrosion of Steel in Acidic Media Inhibited by Benzimidazole Derivatives — G. L. Makovei, V. R. Koroleva, and I. N. Kurmakova.....	783	962
Acid Corrosion Inhibitors Which are Effective at Elevated Temperature — A. K. Iskhakov and F. K. Kurbanov.....	786	964
Radiochemical Investigation of Adsorption of IKB Corrosion Inhibitors for Metals — V. N. Umutbaev, I. R. Khairudinov, and S. N. Galyautdinova.....	787	966
Hydrogen Absorption by Steels in Zincate Electrolytes with Brighteners — S. P. Bagaev, K. S. Pedan, and V. N. Kudryavtsev.....	790	968
Pore Formation in the Initial Period of Electrocrystallization of Copper on an Indifferent Substrate — E. A. Mamontov, L. A. Kurbatova, and A. P. Volenko.....	792	971
Effect of Additives in an Electrolyte for Electropolishing of Steel — N. V. Bogoyavlenskaya, V. P. Zhuravel', V. A. Chizh, and S. A. Faityants.....	795	974
Role of Nickel Ions in the Chemical Polishing of Aluminum — A. I. Turashev and Z. G. Belyaeva.....	797	977
Corrosion-Electrochemical Behavior of Yttrium and Yttrium-Aluminum Alloys in Fused Alkali-Metal Carbonates — V. I. Sannikov, I. N. Ozeryanaya, T. I. Manukhina, and N. D. Shamanova.....	799	978
Influence of Carbon on Scaling Resistance of Iron-Aluminum-Based Alloys — B. S. Ryl'nikov, L. V. Lyubetskaya, and G. V. Arkhangel'skaya.....	803	983
Phase Composition and Heat Resistance of Alloys of the Hf-Nb System — G. I. Ruda, O. Yu. Samgina, and V. P. Smirnov.....	804	984

Oxidation of Chromium in Dissociating Nitrogen Tetroxide

— V. A. Zhabokritskii, V. S. Zotikov, M. Ya. Lantratova,

A. V. Perepelkin, R. E. Polyakova, N. E. Poryadchenko,

A. N. Rakitskii, and N. A. Storchak..... 807 987