

PUBLICATIONS AND REPORTS

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INTERNATIONAL AND NATIONAL JOURNALS

Metal impurity transport control in JET H-mode plasmas with central ion cyclotron radiofrequency power injection

M. Valisa, L. Carraro, I. Predebon, M.E. Puiatti, C. Angioni, I. Coffey, C. Giroud, L. Lauro Taroni, B. Alper, M. Baruzzo, P. Belo daSilva, P. Buratti, L. Garzotti, D. Van Eester, E. Lerche, P. Mantica, V. Naulin, T. Tala, M. Tsalas and JET-EFDA contributors
Nucl. Fusion **51** (2011) 033002 (11pp) febbraio

Physics and engineering design of the accelerator and electron dump for SPIDER

P. Agostinetti, V. Antoni, M. Cavenago, G. Chitarin, N. Marconato, D. Marcuzzi, N. Pilan, G. Serianni, P. Sonato, P. Veltri and P. Zaccaria
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Edge turbulence in different density regimes in Alcator C-Mod experiment

M. Agostini, J.L. Terry, P. Scarin and S.J. Zweben
Nucl. Fusion **51** (2011) 053020 (9pp) aprile

Physical understanding of the instability spectrum and the feedback control of resistive wall modes in reversed field pinch

Z.R. Wang and S.C. Guo
Nucl. Fusion **51** (2011) 053004 aprile

Dynamic decoupling and multi-mode magnetic feedback for error field correction in RFX-mod

L. Piron, L. Grando, G. Marchiori, L. Marrelli, P. Piovesan, A. Soppelsa and D. Terranova
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Topology and transport in the edge region of RFX-mod helical regimes

P. Scarin, N. Vianello, M. Agostini, G. Spizzo, M. Spolaore, M. Zuin, S. Cappello, L. Carraro, R. Cavazzana, G. De Masi, E. Martines, M. Moresco, S. Munaretto, M. E. Puiatti, M. Valisa and the RFX-mod Team
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Edge density characterization in the RFX-mod experiment using the ultrafast reflectometry technique

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Internal and external electron transport barriers in the RFX-mod reversed field pinch

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Franz, E. Gazza, S. Guo, P. Innocente, G. Marchiori, L. Marrelli, P. Martin, E. Martines, S. Martini, S. Menmuir, L. Novello, R. Paccagnella, P. Piovesan, L. Piron, I. Predebon, A. Ruzzon, F. Sattin, P. Scarin, A. Soppelsa, G. Spizzo, S. Spagnolo, M. Spolaore, D. Terranova, M. Veranda, N. Vianello, P. Zanca, L. Zanotto and M. Zuin

Nucl. Fusion **51** (2011) 073038 giugno

Impurity effects on the ion temperature gradient mode in reversed-field pinch plasmas

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Alfvén eigenmodes in the RFX-mod reversed-field pinch plasma

S. Spagnolo, M. Zuin, F. Auriemma, R. Cavazzana, E. Martines, M. Spolaore and N. Vianello

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3D effects on RWM physics in RFX-mod

M. Baruzzo, T. Bolzonella, S.C. Guo, Y.Q. Liu, G. Marchiori, R. Paccagnella, A. Soppelsa, F. Villone and Z.R. Wang

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Overview of the RFX fusion science program

P. Martin, J. Adamek, P. Agostinetti, M. Agostini, A. Alfier, C. Angioni, V. Antoni, L. Apolloni, F. Auriemma, O. Barana, S. Barison, M. Baruzzo, P. Bettini, M. Boldrin, T. Bolzonella, D. Bonfiglio, F. Bonomo, A.H. Boozer, M. Brombin, J. Brotankova, A. Buffa, A. Canton, S. Cappello, L. Carraro, R. Cavazzana, M. Cavinato, L. Chacon, G. Chitarin, W.A. Cooper, S. Dal Bello, M. Dalla Palma, R. Delogu, A. De Lorenzi, G. De Masi, J.Q. Dong, M. Drevlak, D.F. Escande, F. Fantini, A. Fassina, F. Fellin, A. Ferro, S. Fiameni, A. Fiorentin, P. Franz, E. Gaio, X. Garbet, E. Gazza, L. Giudicotti, F. Gnesotto, M. Gobbin, L. Grando, S.C. Guo, Y. Hirano, S.P. Hirshman, S. Ide, V. Igochine, Y. In, P. Innocente, S. Kiyama, S.F. Liu, Y.Q. Liu, D. Lòpez Bruna, R. Lorenzini, A. Luchetta, G. Manduchi, D.K. Mansfield, G. Marchiori, D. Marcuzzi, L. Marrelli, S. Martini, G. Matsunaga, E. Martines, G. Mazzitelli, K. McCollam, S. Menmuir, F. Milani, B. Momo, M. Moresco, S. Munaretto, L. Novello, M. Okabayashi, S. Ortolani, R. Paccagnella, R. Pasqualotto, M. Pavei, G.V. Perverezhev, S. Peruzzo, R. Piovan, P. Piovesan, L. Piron, A. Pizzimenti, N. Pomaro, N. Pomphrey, I. Predebon, M.E. Puiatti, V. Rigato, A. Rizzolo, G. Rostagni, G. Rubinacci, A. Ruzzon, H. Sakakita, R. Sanchez, J.S. Sarff, F. Sattin, A. Scaggion, P. Scarin, W. Schneider, G. Serianni, P. Sonato, E. Spada, A. Soppelsa, S. Spagnolo, M. Spolaore, D.A. Spong, G. Spizzo, M. Takechi, C. Taliercio, D. Terranova, V. Toigo, M. Valisa, M. Veranda, N. Vianello, F. Villone, Z. Wang, R.B. White, D. Yadikin, P. Zaccaria, A. Zamengo, P. Zanca, B. Zaniol, L. Zanotto, E. Zilli, G. Zollino and M. Zuin

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Equilibrium and transport for quasi-helical reversed field pinches

S. Cappello, D. Bonfiglio, D.F. Escande, S.C. Guo, I. Predebon, F. Sattin, M. Veranda, P. Zanca, C. Angioni, L. Chacón, J.Q. Dong, X. Garbet and S.F. Liu

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Flow measurements and modelling in helical RFX-mod equilibria

F. Bonomo, D. Bonfiglio, P. Piovesan, L. Piron, B. Zaniol, S. Cappello, L. Carraro, R. Cavazzana, M. Gobbin, L. Marrelli, E. Martines, B. Momo, M.E. Puiatti and M. Valisa

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B. Zaniol

J. Quant. Spectrosc. Ra. **112** (2011) 513–518 gennaio

Modelling the temperature plateau in RFX-mod single-helical-axis (SHAx) states

F Sattin, N Vianello, R Lorenzini, M Gobbin and F Bonomo

Plasma Phys. Control. Fusion **53** (2011) 025013 (22pp) gennaio

Equilibrium reconstruction for single helical axis reversed field pinch plasmas

E Martines, R Lorenzini, B Momo, D Terranova, P Zanca, A Alfier, F Bonomo, A Canton, A Fassina, P Franz and P Innocente

Plasma Phys. Control. Fusion **53** (2011) 035015 febbraio

Influence of external 3D magnetic fields on helical equilibrium and plasma flow in RFX-mod

P Piovesan, D Bonfiglio, F Bonomo, S Cappello, L Carraro, R Cavazzana, M Gobbin, L Marrelli, P Martin, E Martines, B Momo, L Piron, M E Puiatti, A Soppelsa, M Valisa, P Zanca, B Zaniol and the RFX-mod team

Plasma Phys. Control. Fusion **53** (2011) 084005 maggio

Improved dynamic response of magnetic feedback in RFX-mod and DIII-D

L Piron, J M Hanson, Y In, G Marchiori, L Marrelli, P Martin, M Okabayashi, P Piovesan, H Reimerdes, A Soppelsa and E J Strait

Plasma Phys. Control. Fusion **53** (2011) 084004 maggio

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R Paccagnella and L Guazzotto

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Magnetic reconstruction of nonaxisymmetric quasi-single-helicity configurations in the Madison Symmetric Torus

F Auriemma, P Zanca, W F Bergerson¹, B E Chapman², W X Ding¹, D L Brower¹, P Franz, P Innocente, R Lorenzini, B Momo and D Terranova

Plasma Phys. Control. Fusion **53** (2011) 105006 (17pp) settembre

Magnetic coordinate systems for helical SHAx states in reverse field pinch plasmas

B Momo, E Martines, D F Escande, M Gobbin

Plasma Phys. Control. Fusion **53** (2011) 125004 (13pp) novembre

Ion heat transport studies in JET

P Mantica, C Angioni, B Baiocchi, M Baruzzo, M N A Beurskens, J P S Bizarro, R V Budny, P Buratti, A Casati, C Challis, J Citrin, G Colyer, F Crisanti, A C A Figueiredo, L Frassinetti, C Giroud, N Hawkes, J Hobirk, E Joffrin, T Johnson, E Lerche, P Migliano, V Naulin, A G Peeters, G Rewoldt, F Ryter, A Salmi, R Sartori, C Sozzi, G Staebler, D Strintzi, T Tala, M Tsalias, D Van Eester, T Versloot, P C deVries, J Weiland and JET EFDA Contributors

Plasma Phys. Control. Fusion **53** (2011) 124033 (novembre)

On the mutual effect of ion temperature gradient instabilities and impurity peaking in the reversed field pinch

I Predebon, L. Carraro, Angioni

Plasma Phys. Control. Fusion **53** (2011) 125009 (dicembre)

Parallel and perpendicular flows in the RFX-mod edge region

M. Spolaore [†], G. De Masi, N. Vianello, M. Agostini, D. Bonfiglio, R. Cavazzana, R. Lorenzini, E. Martines, B. Momo, P. Scarin, G. Serianni, S. Spagnolo, M. Zuin

J. Nucl. Mater. **415**, (2011) S437–S442 febbraio

Analysis of the interaction between plasmas and the graphite first wall in RFX-mod

S. Barison, A. Canton, S. Dal Bello, S. Fiameni, P. Innocente, A. Alfier, S. Munaretto, F. Rossetto

J. Nucl. Mater. **415**, Issue 1, Supplement, 1 (2011) S274-S277 agosto

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V. Naulin, N. Vianello, R. Schrittwieser, H.W. Müller, P. Migliucci, M. Zuin, C. Ionita, C. Maszl, F. Mehlmann, J.J. Rasmussen, V. Rohde, R. Cavazzana, M. Maraschek, the ASDEX Upgrade team, JET EFDA contributors

J. Nucl. Mater. **415**, Issue 1, Supplement, 1 (2011) S869-S872 agosto

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E. Nardon, P. Cahyna, S. Devaux, A. Kirk, A. Alfier, E. De La Luna, G. De Temmerman, P. Denner, T. Eich, T. Gerbaud, D. Harting, S. Jachmich, H.R. Koslowski, Y. Liang, Y. Sun, The MAST team and JET-EFDA contributors

J. Nucl. Mater. **415**, Issue 1, Supplement, 1 (2011) S914-S917 agosto

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S.J. Zweben, J.L. Terry, B. LaBombard, M. Agostini, M. Greenwald, O. Grulke, J.W. Hughes, D.A. D'Ippolito, S.I. Krasheninnikov, J.R. Myra, D.A. Russell, D.P. Stotler, M. Umansky

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E.M. Hollmann, G. Arnoux, N. Commaux, N.W. Eidietis, T.E. Evans, R.S. Granetz, A. Huber, D.A. Humphreys, V.A. Izzo, A.N. James, T.C. Jernigan, M. Lehnen, G. Maddaluno, R. Paccagnella, P.B. Parks, V. Philipps, M.L. Reinke, D.L. Rudakov, F. Saint-Laurent, V. Sizyuk, et al.

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Investigation of the thermo-mechanical properties of electro-deposited copper for ITER

P. Agostinetti, M. Dalla Palma, S. Dal Bello, B. Heinemann, R. Nocentini, C. Zauner, H. Langer, J. Klammer

J. Nucl. Mater. **417**, Issues 1-3, Supplement 1 (2011) 924-927 ottobre

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George Vayakis, Luciano Bertalot, Anna Encheva, Chris Walker, Benoît Brichard, M.S. Cheon, G. Chitarin, Eric Hodgson, Christian Ingesson, M. Ishikawa, T. Kondoh, Hans Meister, Philippe Moreau, Simone Peruzzo, S. Pak, Germán Pérez-Pichel, Roger Reichle, Duccio Testa, Matthieu Toussaint, Ludo Vermeeren, et al.

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L. Novello, E. Gaio, R. Piovan, M. Takechi, S. Ide, M. Matsukawa

Fusion Eng. Des. **86**, Issue 1, (2011) 33-40 gennaio

The Transmission Line for the SPIDER experiment

Marco Boldrin, Antonio De Lorenzi, Mauro Recchia, Vanni Toigo, Tullio Bonicelli, Muriel Simon

Fusion Eng. Des. **86**, (2011) 754-758 febbraio

Near-infrared detectors for ITER LIDAR Thomson scattering

L. Giudicotti, R. Pasqualotto, A. Alfier, M.N.A. Beurskens, M. Kempenaars, J.C. Flanagan, M.J. Walsh, I. Balbo

Fusion Eng. Des. **86**, (2011) 198-205 febbraio

Overview of modelling activities for Plasma Control Upgrade in JET

R. Albanese, G. Ambrosino, M. Ariola, G. Artaserse, T. Bellizio, V. Coccoresse, F. Crisanti, G. De Tommasi, R. Fresa, P.J. Lomas, M. Mattei, F. Maviglia, A. Neto, F. Piccolo, A. Pironti, A. Portone, F.G. Rimini, F. Sartori, A. Sorrentino, V. Toigo, F. Villone, A. Viola, L. Zabeo, JET EFDA Contributors

Fusion Eng. Des. **86**, (2011) 1030–1033 marzo

Near-infrared detectors for ITER LIDAR Thomson scattering

L. Giudicotti, R. Pasqualotto, A. Alfier, M.N.A. Beurskens, M. Kempenaars, J.C. Flanagan, M.J. Walsh, I.

Fusion Eng. Des. **86**, Issues 2-3, (2011) 198-205 marzo

Overview on the power supply systems for plasma instabilities control

V. Toigo, E. Gaio, R. Piovan, M. Barp, M. Bigi, A. Ferro, C. Finotti, L. Novello, M. Recchia, A. Zamengo, L. Zanotto

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Closed loop control of reversal parameter in RFX-mod

Marco Barp, Roberto Cavazzana, Giuseppe Marchiori, Anton Soppelsa, Loris Zanotto

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S. Dal Bello, A. Ferro, A. Gallo, L. Grandi, N. Pilan, A. Rizzolo, C. Taliercio, M. Valisa, P. Agostinetti, P. Bettini, G. Lazzaro, A. Tiso, M. Tollin, E. Zampiva, D. Zella, Y. Hirano, S. Kiyama, H. Sakakita

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Rita S. Delogu, David Terranova

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Paolo Bettini, Franco Blanchini, Roberto Cavazzana, Giuseppe Marchiori, Stefano Miani, Anton Soppelsa

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Enhancement of the power supply systems in RFX-mod towards 2 MA plasma current

Luca Novello, Andrea Zamengo, Alberto Ferro, Loris Zanotto, Marco Barp, Roberto Cavazzana, Claudio Finotti, Mauro Recchia, Elena Gaio

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M. Recchia, M. Bigi, M. Cavenago

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Conceptual design of the power supply system for the in-vessel saddle coils for MHD control in ASDEX Upgrade

E. Gaio, A. Zamengo, V. Toigo, L. Zanotto, M. Rott, W. Suttrop, the ASDEX Upgrade Team
Fusion Eng. Des. **86**, Issues 6-8, (2011) 1488-1492 ottobre

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Chr. Day, H. Haas, St. Hanke, V. Hauer, X. Luo, M. Scannapiego, R. Simon, H. Strobel, F. Fellin, R. Lässer, A. Masiello, St. Papastergiou, M. Dremel, Chr. Mayaux, R. Pearce
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F. Fellin, D. Marcuzzi, P. Zaccaria, G. Agarici
Fusion Eng. Des. **86**, Issues 6-8, (2011) 843-846 ottobre

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Murari A., J. Vega, D. Mazon, G.A. Rattá, M. Gelfusa, A. Debie, C. Boulbe, B. Faugeras, JET-EFDA, Culham Science Centre, OX14 3DB, Abingdon, UK JET-EFDA Contributors
Fusion Eng. Des. **86**, Issues 6-8, (2011) 544-547 ottobre

Ionizing radiation compatibility in the MITICA neutral beam prototype

M. Bagatin, A. Coniglio, M. D'Arienzo, A. De Lorenzi, S. Gerardin, A. Paccagnella, R. Pasqualotto, S. Peruzzo, S. Sandri, B. Zaniol
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Requirements specification for the Neutral Beam Injector on FAST

M. Baruzzo, T. Bolzonella, G. Calabro, F. Crisanti, A. Cucchiaro, D. Marcuzzi, W. Rigato, M. Schneider, P. Sonato, M. Valisa, P. Zaccaria, J.F. Artaud, V. Basiuk, A. Cardinali, F. Imbeaux, L. Lauro Taroni, M. Marinucci, P. Mantica, F. Zonca
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Alberto Pesce, Antonio De Lorenzi, Marco Boldrin
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JT-60SA power supply system

Coletti A., O. Baulaigue, P. Cara, R. Coletti, A. Ferro, E. Gaio, M. Matsukawa, L. Novello, M. Santinelli, K. Shimada, F. Starace, T. Terakado, K. Yamauchi
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Simulation, code benchmarking and optimization of the magnetic field configuration in a Negative Ion Accelerator

N. Marconato, G. Chitarin, P. Agostinetti, N. Pilan, G. Serianni
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FAST: A European ITER satellite experiment in the view of DEMO

F. Crisanti, A. Cucchiaro, R. Albanese, G. Artaserse, M. Baruzzo, T. Bolzonella, G. Brolatti, G. Calabrò, F. Crescenzi, R. Coletti, P. Costa, A. della Corte, A. Di Zenobio, P. Frosi, D. Harting, L. Lauro Taroni, G. Maddaluno, D. Marcuzzi, F. Maviglia, L. Muzzi, et al.
Fusion Eng. Des. **86**, Issues 6-8, (2011) 497-503 ottobre

Simulations of the SOL plasma for FAST, a proposed ITER satellite tokamak

V. Pericoli Ridolfini, R. Zagórski, B. Viola, G. Calabrò, G. Corrigan, F. Crisanti, G. Maddaluno, L. Lauro-Taroni
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PCCE—A Predictive Code for Calorimetric Estimates in actively cooled components affected by pulsed power loads

P. Agostinetti, M. Dalla Palma, F. Fantini, F. Fellin, R. Pasqualotto
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Overview of modelling activities for Plasma Control Upgrade in JET

R. Albanese, G. Ambrosino, M. Ariola, G. Artaserse, T. Bellizio, V. Coccoresse, F. Crisanti, G. De Tommasi, R. Fresa, P.J. Lomas, M. Mattei, F. Maviglia, A. Neto, F. Piccolo, A. Pironti, A. Portone, F.G. Rimini, F. Sartori, A. Sorrentino, V. Toigo, F. Villone, B. Viola, L. Zabeo, JET EFDA Contributors
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Analysis of breakdown on thermal and electrical measurements for SPIDER accelerating grids

Alberto Pesce, Nicola Pomaro
Fusion Eng. Des. **86**, Issues 6-8, (2011) 929-933 ottobre

Computationally efficient SVM multi-class image recognition with confidence measures

Lázaro Makili, Jesús Vega, Sebastián Dormido-Canto, Ignacio Pastor, Andrea Murari
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The thermal measurement system for the SPIDER beam source

M. Dalla Palma, N. Pomaro, L. Trevisan
Fusion Eng. Des. **86**, Issues 6-8, (2011) 1328-1331 October

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Teddy Craciunescu, Peter Lang, Andrea Murari, Tamás Szepesi, Sándor Kálvin, Gábor Kocsis, Arturo Alonso, Ion Tiseanu, Vasile Zoita, JET-EFDA Culham Science Centre, Abingdon, OX14 3DB, UK JET EFDA Contributors
Fusion Eng. Des. **86**, Issues 6-8, (2011) 1186-1190 ottobre

The Transmission Line for the SPIDER experiment

Marco Boldrin, Antonio De Lorenzi, Mauro Recchia, Vanni Toigo, Tullio Bonicelli, Muriel Simon
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The European contribution to the development of the ITER NB injector

Masiello A., G. Agarici, T. Bonicelli, M. Simon, J. Alonso, M. Bigi, D. Boilson, G. Chitarin, C. Day, P. Franzen, S. Hanke, B. Heinemann, R. Hemsworth, A. Luchetta, D. Marcuzzi, J. Milnes, T. Minea, R. Pasqualotto, N. Pomaro, G. Serianni, et al.
Fusion Eng. Des. **86**, Issues 6-8, (2011) 860-863 ottobre

The role of JET for the preparation of the ITER exploitation

Francesco Romanelli, Martin Laxåback, Frédéric Durodié, Lorne Horton, Michael Lehnen, Andrea Murari, Fernanda Rimini, George Sips, Klaus-Dieter Zastrow, JET EFDA contributors
Fusion Eng. Des. **86**, Issues 6-8, (2011) 459-464 ottobre

Electromagnetic analyses on radial field sector coils for JT-60SA

Alberto Ferro, Elena Gaio, Manabu Takechi, Makoto Matsukawa
Fusion Eng. Des. **86**, Issues 6-8, (2011) 1527-1530 ottobre

HVPTF—The high voltage laboratory for the ITER Neutral Beam test facility

De Lorenzi A., N. Pilan, L. Lotto, M. Fincato, G. Pesavento, R. Gobbo
Fusion Eng. Des. **86**, Issues 6-8, (2011) 742-745 ottobre

Fusion alpha loss diagnostic for ITER using activation technique

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