

## 研究業績リストー 1 (英文論文)

## (1) 学術雑誌論文 (査読あり)

## 1-1. 第1著者論文:

1. **"A study of hydrogen absorption and desorption by titanium"**  
Y. Hirooka, M. Miyake and T. Sano  
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2. **"Helium ion irradiation on chemically deposited molybdenum and molybdenum carbide"**  
Y. Hirooka, T. Imoto and T. Sano  
J. Nucl. Mater. **113**(1983)202-206.
3. **"Sputtering of titanium and niobium hydrides"**  
Y. Hirooka, H. Shinmura and T. Sano  
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4. **"On the reaction of graphite with atomic hydrogen"**  
Y. Hirooka, M. Nagae and T. Sano  
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Y. Hirooka  
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Y. Hirooka, R.W. Conn and D.M. Goebel  
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7. **"Materials erosion and redeposition studies at the PISCES-facility"**  
Y. Hirooka, D.M. Goebel, R.W. Conn, W.K. Leung and G.A. Campbell  
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8. **"Materials surface modification by plasma bombardment under simultaneous erosion and redeposition conditions"**  
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9. **"Hydrogen pumping and release by graphite under high-flux plasma bombardment"**  
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10. **"Deuterium pumping and erosion behavior of selected graphite materials under high flux plasma bombardment in PISCES-A: Effects of surface pores and machined grooves"**  
Y. Hirooka, R.W. Conn, D.M. Goebel, B. LaBombard, R. Lehmer, W.K. Leung, R.E. Nygren and Y.Ra  
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11. **"In-situ spectroscopic measurements of erosion behavior of TFTR redeposited carbon materials under high-flux plasma bombardment in PISCES-A"**  
Y. Hirooka, A. Pospieszczyk, R.W. Conn, B. Mills, R.E. Nygren and Y. Ra  
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12. **"A new plasma-surface interactions research facility: PISCES-B and the first materials erosion experiments on bulk-boronized graphite"**  
Y. Hirooka, R.W. Conn, T. Sketchley, W.K. Leung, R. Doerner, J. Elverum, D.M. Goebel, G. Gunner, M. Khandagle, B. LaBombard, R. Lehmer, P. Luong, Y. Ra, L. Schmitz and G. Tynan  
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13. **"Bulk-boronized graphites for plasma-facing components in ITER"**  
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Y. Hirooka, R.W. Conn, M. Khandagle, G. Chevalier, T. Sogabe, T. Matsuda, H. Ogura, H. Toyoda, and H. Sugai  
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15. **"Solid Target Boronization in the Tokamak de Varennes"**  
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16. **"Evaluation of tungsten as a plasma-facing material for steady state magnetic fusion devices"**  
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Y. Hirooka  
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25. **“Deposition of lithium on a plasma edge probe in TFTR”**  
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38. **“Conference report on the 1st international workshop on Li-applications to boundary control in fusion devices”**  
Y. Hirooka, G. Mazzitelli, S. V. Mirnov, M. Ono, M. Shimada and F. L. Tabares  
Nucl. Fusion **50**(2010)077001.
39. **“Laboratory experiments on cluster/aerosol formation by colliding ablation plumes”**  
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41. **“Aerosol formation and hydrogen co-deposition by colliding ablation plasma plumes of lithium and lead”**  
Yoshi Hirooka, Naoki Omoto, Tatsuya Oishi and Kazuo. A. Tanaka  
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45. **“Hydrogen and helium recycling from stirred liquid lithium under steady state plasma bombardment”**  
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46. **“A review of the present status and future prospectus of the application of liquid metals for plasma-facing components in magnetic fusion devices”**  
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47. **“Hydrogen and helium recycling from a JxB-force convected liquid metal  $Ga_{67}In_{20.5}Sn_{12.5}$  under steady state plasma bombardment”**  
Yoshi Hirooka, Hailin Bi, Michiya Shimada and Masa Ono  
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48. **“Steady state hydrogen, deuterium, helium and argon plasma interactions with a liquid metal:  $Ga_{67}In_{20.5}Sn_{12.5}$  convected by Lorentz force”**  
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49. **“A review of recent studies on particle recycling from liquid metals with/without convection under plasma bombardment”**  
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50. **“Conference report on the 1st US-Japan workshop on power and particle control by liquid metal plasma-facing components in steady state magnetic fusion DEMO reactor”**  
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2. **"Chemical vapor deposition of niobium on graphite"**  
M. Miyake, Y. Hirooka, R. Imoto and T. Sano  
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3. **"Absorption and desorption behavior of hydrogen by neutron irradiated titanium"**  
M. Miyake, Y. Hirooka, H. Shinmura, S. Yamanaka, T. Sano and Y. Higashiguchi  
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4. **"Chemical vapor deposition of molybdenum on graphite"**  
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D. M. Goebel, Y. Hirooka and T. A. Sketchley  
Rev. Sci. Instrum. **56**(1985) 1717-1722.
6. **"Large-area lanthanum molybdenum electron emitters"**  
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  18. **"The TEXTOR helium self-pumping experiment: Design, plans, and supporting ion beam data on helium retention in nickel"**  
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