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*"Electronic structure of hydrogenated amorphous carbon thin films as a function of annealing temperature using photoemission spectroscopy"*, Yuichi Haruyama, Masahito Tagawa, Kumiko Yokota, Shinji Matsui, Japanese Journal of Applied Physics, Vol.48, (2009) 055505.

*"Erosion of FEP Teflon and PMMA by VUV radiation and hyperthermal O or Ar atoms"*, Jianming Zhang, Ned F. Lindholm, Amy L. Brunsvold, Hari P. Upadhyaya, and Timothy K. Minton, Masahito Tagawa, ACS Appl. Mater. Interfaces, Vol. 1, No.3 (2009) 653-660.

*"Atomic oxygen concentrators for material exposure acceleration tests in low earth orbit"*, Masahito Tagawa, Hiroaki Doi, Kumiko Yokota, J. Spacecraft and Rockets, Vol.46, No.2 (2009) 226-229.

*"Hydrogen desorption from a diamond-like carbon film by hyperthermal atomic oxygen exposures"*, Kumiko Yokota, Masahito Tagawa, Akira Kitamura, Koji Matsumoto, Akitaka Yoshigoe, Yuden Teraoka, Applied Surface Science, Vol.255 No.13-14 (2009) 6710-6714.

*"Si-doping for the of hydrogenated diamond-like carbon films in a simulated atomic oxygen environment in LEO protection"*, Kumiko Yokota, Masahito Tagawa, Akira Kitamura, Koji Matsumoto, Akitaka Yoshigoe, Yuden Teraoka, Julien Fontaine, Michel Belin, Transactions of the Japan Society for Aeronautical and Space Sciences, Space Technology Japan, Vol. 7 (2009) No. ists26, pp.Pc\_37-Pc\_42

*"Issues and consequences of space environmental effect on materials"*, Masahito Tagawa, Kumiko Yokota, Transactions of the Japan Society for Aeronautical and Space Sciences, Space Technology Japan, Vol. 7 (2009) No. ists26, pp.Tr\_2\_21-Tr\_2\_26

*"Effects of long-term irradiation with LEO environment effective factors on properties of solid lubricant"*, Koji Matsumoto, Masahito Tagawa, Masao Akiyama, Transactions of the Japan Society for Aeronautical and Space Sciences, Space Technology Japan, Vol. 7 (2009), No. ists26, pp.Pc\_31-Pc\_36

*"Atomic layer fluorination of highly oriented pyrolytic graphite using hyperthermal atomic fluorine beam"*, Masahito Tagawa, Kumiko Yokota, Ken-ichi Maeda, Akitaka Yoshigoe, Yuden Teraoka, Applied Physics Express, Vol.2, No.6 (2009) 066002.

*"Fluorination of PMDA-ODA Polyimide using Hyperthermal Atomic Fluorine Beams"* Masahito Tagawa, Kumiko Yokota, Kensuke Akamatsu, Hidemi Nawafune, K. L Mittal Ed., Polyimides and Other High Temperature Polymers Vol.5, (VSP, Leiden, NL, 2009) pp249-260.

*"Durability of a Silicon-Containing Polyimide in a Simulated Low Earth Orbit Space Environment"* Kumiko Yokota, Masahito Tagawa, Minoru Iwata, Eiji Miyazaki, Jun-ichiro Ishizawa, Mineo Suzuki, Rikio Yokota, K. L Mittal Ed., Polyimides and Other High Temperature Polymers Vol.5, (VSP, Leiden, NL, 2009) pp379-390.