



[Mechanical Engineering](#) > GOTO Minoru



GOTO Minoru

Organization	Mechanical Engineering
Position	Associate Professor
Academic Title	Doctor(Engineering)
Research Fields	Materials Processing Technology, Tribology, Mechanical Engineering

<< Research Subjects >>

1. [Tribology of Journal Bearing](#)
2. [Functional Surface Processing Technology utilizing Friction Interface Phenomena](#)
3. [Thin Film Materials for Low Friction and Low Noise Electrical Contacts](#)

<< Academic Activities >>

Papers and Notes

1. [M. Goto, K. Akimoto, and F. Honda: " Selective growth of epitaxial Ag film using Tribo-assisted reorientation ", Proc. Instn Mech. Engrs Vol. 222 No. 3 Part J: J. Engineering Tribology, pp.241-248 \(2008\).](#)
2. [M. Goto, H. Kobayashi, and K. Akimoto : " Selective Growth of Homo-epitaxial Ag Nano-Layer on Tribo-Assisted-Reorientation ", Tribology Online, Vol.3, No.3 pp.173-176 \(2008\).](#)
3. [M. Goto, K. Akimoto, F. Honda, and T. Nakahara: " Tribo-assisted reorientation of nanometer-thick Ag film in ultrahigh vacuum environment ", Proc. Instn Mech. Engrs Vol. 220 No. 3 Part J: J. Engineering Tribology, pp.135-142 \(2006\).](#)
4. [T. Tokoroyama, M. Goto, N. Umehara, T. Nakamura, and F. Honda: " Effect of Nitrogen atoms desorption on the friction of the CNx coating against Si3N4 ball in Nitrogen gas ", Tribology Letters, Vol. 22, No. 3, pp.215-220 \(2006\).](#)
5. [K. Akimoto, K. Fukagawa, M. Goto, and F. Honda: " Crystal orientation changes of Ag thin films on the Si\(111\) substrate due to tribo-assisted recrystallization ", Thin Solid Films 515 pp.444-447 \(2006\).](#)
6. [F. Honda and M. Goto: " Low wear and friction of nanometer-thick Ag layers on Si\(111\) surfaces ", Wear, Vol.259/1-6, pp.730-737 \(2005\).](#)
7. [M. Goto, T. Nakahara, and F. Honda: " Morphological effect of epitaxial Ag films with thickness of the order of nanometers on the tribological properties of a single-crystal silicon surface in an ultra-high-vacuum environment ", Proc. Instn Mech. Engrs Vol. 218 No. 4 Part J: J. Engineering Tribology, pp.279-291 \(2004\).](#)
8. [M. Goto, R. Nakata, and F. Honda: " Tribological behavior of an Ag sub-nanometer-thick film on an Si\(111\) 7x7 surface at elevated temperatures ", Wear, Vol. 256, pp.726-734 \(2004\).](#)
9. [M. Goto and F. Honda: " Film-thickness effect of Ag lubricant layer in the nano-region ", Wear, Vol. 256, pp.1062-1071 \(2004\).](#)
10. [F. Honda, M. Goto, H. Masuda, and T Yamamoto: " A tribological role of surface atoms: ultra-thin carbon and Ag layers on the Si \(111\)", Tribol. Int., Vol. 36, pp.371-377 \(2003\).](#)
11. [M. Goto, F. Honda, and M. Uemura: " Extremely low coefficient of friction of diamond sliding against Ag thin films on Si\(111\) surface under ultrahigh vacuum condition ", Wear, Vol.252, pp.777-786 \(2002\).](#)
12. [M. Goto, K. Watanabe, and F. Honda: " Super lubricity of diamond sliding on the Ag monolayer/ Si \(111\) and the effect of gas adsorption ", Surf. Sci., 507-510, pp.922-927 \(2002\).](#)

Books

1. [A. Eldemir et al. \(Editors\), section 11, M. Goto and F. Honda : " Superlubricity Section 11, Superlubricity of Ag Nanometer-ThickLayers under Macroscopic Sliding System in UHV Condition ", Elsevier Science B. V., pp.179-199 \(2007\).](#)

Presentations

1. [M. Goto, M. Nonogaki, T. Tokoroyama, and T. Nakahara: "Running-in behavior in sliding contact between DLC coated surface and lead-free metal with low-viscosity lubricant" Tribology 2008, London UK, July 8-11, 2008.](#)
2. [M. Goto, K. Akimoto, and F. Honda: "Selective growth of epitaxial Ag film using Tribo-assisted reorientation", 34th Leeds-Lyon Symposium on Tribology, Lyon, France, 2007-9.](#)
3. [Takayuki Tokoroyama, Minoru Goto, Tomonori Ikari, Fumihiro Honda, Noritsugu Umehara: "The effect of Nitrogen atoms included in CNx coatings on friction sliding against Si3N4 ball in Nitrogen gas", ICMCTF2007, Town and Country Hotel, San Diego, California, \(USA\) 2007 April 23-27.](#)
4. [F. Honda, M. Goto, and T. Matsuura: "Superlubricity of nanometer-thick Ag layers and the surface structure after sliding in UHV", Proc. 13th International Conference on Solid Films and Surfaces, San Carlos de Bariloche, Argentina, November 6-10, 2006.](#)
5. [Takayuki Tokoroyama*, Noritsugu Umehara, Minoru Goto, and Fumihiro Honda: "Effect of Nitrogen desorption on the friction of the CNx coating against Si3N4 ball in Nitrogen gas", The Third Asia International Conference on Tribology, Kanazawa \(Japan\) October 16-19, 2006.](#)
6. [Fumihiro Honda and Minoru Goto: "Characterization of near 2-dimensional Ag metal layers and the superlubricant performance", The Third Asia International Conference on Tribology, Kanazawa \(Japan\) October 16-19, 2006.](#)
7. [K. Akimoto, M. Goto, and F. Honda: "Crystal orientation changes of silver thin films on the silicon substrate due to tribo-assisted recrystallization studied by synchrotron radiation X-ray diffraction", The Third Asia International Conference on Tribology, Kanazawa \(Japan\) October 16-19, 2006. Invited talk.](#)
8. [Fumihiro Honda, Minoru Goto, and Tamifusa Matsuura: "A study of sliding mechanism of superlubricant nanometer-thick Ag film", Proc. Intertribo 2006 \(Slovak\) October 11-13, 2006.](#)
9. [M. Goto, K. Akimoto, F. Honda, and T. Nakahara: "Tribo-assisted reorientation of nanometer-thick Ag film in ultrahigh vacuum environment", 32th Leeds-Lyon Symposium on Tribology, Lyon \(France\) 2005-9. Invited talk.](#)
10. [F. Honda and M. Goto: "Tribological roles of nanometer-thick Ag layers on the Hertz contact in macroscopic contacts", Micro-Tribology 2005, Karwica \(Poland\) Sept. 4-8, 2005.](#)
11. [M. Goto, F. Honda, and T. Nakahara: "Experimental study on superlubricity of Ag nanometer-thick-layers by sliding on a macroscopic system", WTC2005, Washington DC \(USA\) 2005-9. Special invitation.](#)
12. [F. Honda and M. Goto: "A mechanism of sliding on the nanometers-thick Ag layers", WTC2005, Washington DC \(USA\) 2005-9.](#)
13. [F. Honda and M. Goto: "Low wear and friction of nanometer-thick Ag layers on Si\(111\) surfaces", 15th International Conference on Wear of Materials, San Diego \(USA\) 24-28 April 2005.](#)
14. [M. Goto, T. Nakahara, and F. Honda: "Relation between macroscopic friction characteristics and nanometric scale structure of Ag film", 1st Int. Tribol. Congress Micro- and Nano-Technology, Vienna \(Austria\) 2005-3.](#)
15. [K. Akimoto, M. Goto, K. Fukagawa, and F. Honda: "Crystal Orientation Changes of Silver Films due to the Tribological Performance", 1st Int. Tribol. Congress Micro- and Nano-Technology, Vienna \(Austria\) 2005-3.](#)
16. [M. Goto, K. Akimoto, and F. Honda: "The effect of the crystallographic orientation of Ag thin films on the tribological performance", 31th Leeds-Lyon Symposium, Leeds \(UK\) 2004-9.](#)
17. [M. Goto and F. Honda: "Morphological effect on lubricity of Ag thin films", 30th Leeds-Lyon Symposium on Tribology Transient Processes in Tribology, Lyon \(France\) 2003-9.](#)
18. [M. Goto, T. Yamamoto and F. Honda: "Thickness dependency of the lubricity of Ag thin films deposited on Si\(111\)7x7 surface", 29th Leeds-Lyon Symposium on Tribology Tribological Research and Design for Engineering Systems, Leeds \(UK\) 2002-9.](#)
19. [M. Goto and F. Honda: "Super lubricity of diamond sliding on the Ag monolayer/ Si \(111\) and the effect of gas adsorption", ECOSS-20 Krakow \(Poland\) September 4-7, 2001.](#)
20. [M. Goto and F. Honda: "Tribo-induced morphological change of extremely thin Ag films", ECOSS-20 Krakow \(Poland\) September 4 - 7, 2001.](#)
21. [R. Nakata, M. Goto, and F. Honda: "Extraordinary low friction of Ag film on the Si\(111\) as the function of substrate temperature and film thickness", 27th Leeds-Lyon Symposium on Tribology, Lyon \(France\) 2000-9.](#)
22. [M. Goto, F. Honda, and M. Uemura: "Low friction force of diamond sliding on Ag thin films deposited on Si\(111\) plate", 25th Leeds-Lyon Symposium on Tribology Lubrication at the Frontier, Lyon \(France\) 1998-9. Invited talk.](#)