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## ON THE COVER: (Top) Molecular-dynamics simulation of a monolayer of liquid ethane molecules lubricating the interface between two hydrogen-terminated (111) diamond surfaces. Courtesy of J.A. Harrison and S.J. Stuart, based on their work at the United States Naval Academy. For more information,

states Naval Academy. For more information, see the article by J.A. Harrison and S.S. Perry on p. 27 of this issue. (Center) Scanning-electron-microscopy

image of a friction test microstructure. Courtesy of R. Maboudian. For more information, see the article by R. Maboudian on p. 47 of this issue.

(Bottom) Molecular-dynamics simulation of two copper workpieces in sliding contact. Courtesy of J.E. Hammerberg. For more information, see the article by D.A. Rigney and J.E. Hammerberg on p. 32 of this issue. (Background) Scanning-tunneling-

(Background) Scanning-tunnelingmicroscopy image of graphite, a wellestablished lubricant at macroscopic length scales. Courtesy of M. Rose

Michael Rose contributed to the cover design.



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