Abstract Submitted
for the MAR05 Meeting of
The American Physical Society

Adhesion properties of gecko setae[1] GINEL HILL, Stanford University, ANNE PEATTIE, University of California, Berkeley, ROXANNE DANIELS, Stanford University, ROBERT FULL, University of California, Berkeley, THOMAS KENNY, Stanford University — Millions of keratin hairs on gecko feet, called setae, act as a spectacular dry adhesive. Each seta branches into hundreds of smaller fibers that terminate in spatula-shaped ends. Morphological differences between the setae from different gecko species are suspected to affect both single-seta and whole-animal adhesion properties. Single-seta adhesive force measurements made using a MEMS piezoresistive cantilever capable of two-axis measurements are presented.

[1]Funded in part by NSF (COINS and NNUN), DARPA, and SGF.

Ginel Hill
Stanford University

Date submitted: 01 Dec 2004 Electronic form version 1.4