

Giant exchange bias in MnPd/Co bilayers

Nam N.T., Phu Thuy N., Anh Tuan N., Nguyen Phuoc N., Suzuki T.

International Training Institute for Materials Science, Hanoi University of Technology, Hanoi, Viet Nam;
College of Technology, Vietnam National University, Hanoi, Viet Nam; Information Storage Materials
Laboratory, Toyota Technological Institute, 2-12-1 Hisakata, Tempaku, Nagoya, 468-8511, Japan

Abstract: A systematic study of exchange bias in MnPd/Co bilayers has been carried out, where the dependences of exchange bias, unidirectional anisotropy constant and coercivity on the thicknesses of MnPd and Co layers were investigated. A huge unidirectional anisotropy constant, $J_K = 2.5 \text{ erg / cm}^2$ was observed, which is in reasonable agreement with the theoretical prediction based on the model by Meiklejohn and Bean. The angular dependences of exchange bias field and coercivity have also been examined showing that both exchange bias and coercivity follow $1 / \cos \alpha$ rule. © 2007 Elsevier B.V. All rights reserved.

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Correspondence Address: Nam, N.T.; International Training Institute for Materials Science, Hanoi University of Technology, Hanoi, Viet Nam; email: sd06508@toyota-ac.ti.jp

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Authors with affiliations:

- Nam, N.T., International Training Institute for Materials Science, Hanoi University of Technology, Hanoi, Viet Nam, Information Storage Materials Laboratory, Toyota Technological Institute, 2-12-1 Hisakata, Tempaku, Nagoya, 468-8511, Japan
- Phu Thuy, N., International Training Institute for Materials Science, Hanoi University of Technology, Hanoi, Viet Nam, College of Technology, Vietnam National University, Hanoi, Viet Nam
- Anh Tuan, N., International Training Institute for Materials Science, Hanoi University of Technology, Hanoi, Viet Nam

- Nguyen Phuoc, N., International Training Institute for Materials Science, Hanoi University of Technology, Hanoi, Viet Nam, Information Storage Materials Laboratory, Toyota Technological Institute, 2-12-1 Hisakata, Tempaku, Nagoya, 468-8511, Japan
- Suzuki, T., Information Storage Materials Laboratory, Toyota Technological Institute, 2-12-1 Hisakata, Tempaku, Nagoya, 468-8511, Japan

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