

Publications

Z. Zhang, B. Rashkova, G. Dehm, P. Lazar, J. Redinger, R. Podloucky
Unveiling the atomic and electronic structure of the VN/MgO interface Phys. Rev. B, **82**, 060103 (2010)

P. Lazar, X.-Q. Chen, and R. Podloucky
First-principles modeling of hardness in transition-metal diborides
Physical Review B, **80**, 012103 (2009)

P. Lazar and R. Podloucky
Mechanical properties of superhard BC₅
Applied Physics Letters, **94**, 251904 (2009)

P. Lazar and R. Podloucky
Ductility and magnetism: An ab-initio study of NiAl-Fe and NiAl-Mn alloys
Intermetallics, **17**, 675 (2009)

P. Lazar, B. Rashkova, J. Redinger, R. Podloucky, C. Mitterer, C. Scheu, and G. Dehm
Interface structure of epitaxial (111) VN films on (111) MgO substrates
Thin Solid Films, **517**, 1177 (2008)

P. Lazar, R. Podloucky, E. Kozeschnik, and J. Redinger
Density functional theory study of ternary V-Cr-N compounds
Physical Review B, **78**, 134202 (2008)

P. Lazar and R. Podloucky
Cleavage fracture of a crystal: Density functional theory calculations based on a model which includes structural relaxations
Physical Review B, **78**, 104114 (2008)

P. Lazar, J. Redinger, J. Strobl, R. Podloucky, B. Rashkova, G. Dehm, G. Kothleitner, S. Sturm, K. Kutschej, C. Mitterer, and C. Scheu
N-K electron energy-loss near-edge structures for TiN/VN layers: an ab initio and experimental study
Analytical and Bioanalytical Chemistry, **390**, 1447 (2008)

B. Rashkova, P. Lazar, J. Redinger, R. Podloucky, G. Kothleitner, S. Sturm, K. Kutschej, C. Mitterer, C. Scheui, and G. Dehm
Combined ab-initio and N-K, Ti-L-2,L-3, V-L-2,L-3 electron energy-loss near edge structure studies for TiN and VN films
International Journal of Materials Research, **98**, 1060 (2007)

P. Lazar, J. Redinger, and R. Podloucky
Density functional theory applied to VN/TiN multilayers Physical Review B, **76**, 174112 (2007)

A. Glaser, S. Surnev, M.G. Ramsey, P. Lazar, J. Redinger, R. Podloucky, and F.P. Netzer
The growth of epitaxial VN(111) nanolayer surfaces Surface Science, **601**, 4817 (2007)

P. Lazar and R. Podloucky
Ab initio study of tension-shear coupling in NiAl Physical Review B, **75**, 024112 (2007)

P. Lazar, R. Podloucky
Ab initio study of the mechanical properties of NiAl microalloyed by X=Cr,Mo,Ti,Ga
Physical Review B, **73**, 104114 (2006)

P. Lazar, R. Podloucky, and W. Wolf
Correlating elasticity and cleavage
Applied Physics Letters, **87**, 261910 (2005)