TABLE OF CONTENTS

STRUCTURAL, SURFACE AND FINITE-SIZE EFFECTS

012001 ATOMIC RELAXATION EFFECTS ON MAGNETISM IN COPT NANOALLOYS ........................................ 1
   V Dupuis, A Tamion

012002 CONCENTRIC MnFe2O4-RICH CORE/Cr2O3-RICH SHELL NANO PARTICLES ................................. 6
   S Liébana-Viñas, R Otero-Lorenzo, B Rivas-Murias, V Salgueiriño

012003 INVESTIGATING INDIVIDUAL Fe50Co50 ALLOY NANO PARTICLES USING X-RAY
   PHOTOMISSION ELECTRON MICROSCOPY .................................................................................. 10
   A Kleibert, A Balan, A F Rodríguez, F Nolting

012004 PARTICLE SIZE EFFECTS ON THE MAGNETIC BEHAVIOUR OF 5 TO 11 NM Fe3O4
   NANO PARTICLES COATED WITH OLEIC ACID ............................................................................. 15
   K Chesnel, M Trevino, Y Cai, J M Hancock, S J Smith, R G Harrison

012005 MICROWAVE-ASSISTED SWITCHING: OPTIMAL MICROWAVE FIELD FOR A
   NANOMAGNET WITH SURFACE ANISOTROPY ............................................................................ 18
   N Barros, H Kachkachi

ASSEMBLIES, COLLECTIVE EFFECTS

012006 UNDERSTANDING DYNAMICS OF INTERACTING MAGNETIC NANO PARTICLES:
   FROM THE WEAK INTERACTION REGIME TO THE COLLECTIVE SUPERSPIN GLASS
   STATE ........................................................................................................................................... 22
   D Fiorani, D Peddis

012007 CRYSTALLINE ORDER EFFECTS ON THE MAGNETIC PROPERTIES OF
   SUPERLATTICES MADE OF COBALT NANO CRYSTALS ............................................................... 31
   I Lisiecki, S Nakamue

012008 FE-OXIDE NANO PARTICLES: A NATURAL PLAYGROUND FOR TESTING THE ISP
   MODEL ............................................................................................................................................. 34
   P Allia

012009 MEASURING MAGNETIC CORRELATIONS IN NANO PARTICLE ASSEMBLIES ................. 38
   M Beleggia, C Frandsen

012010 EQUILIBRIUM AND DYNAMIC BEHAVIOUR OF (WEAKLY) INTERACTING
   ASSEMBLIES OF MAGNETIC NANO PARTICLES ......................................................................... 42
   F Vernay, Z Saheb, O Iglesias, H Kachkachi

012011 IDEAL SUPERSPIN GLASS BEHAVIOUR IN A RANDOM-CLOSE-PACKED ENSEMBLE
   OF MAGHEMITE NANO PARTICLES ............................................................................................. 46
   J A De Toro, S S Lee, R Mathieu, P S Normile, D Salazar, J L Cheong, P Muñiz, J M Riveiro, M Hillenkamp, A
   Tamion, F Tournus, P Nordblad

012012 SUPER SPIN DIMENSIONALITY OF A MONO-DISPERSED AND DENSELY PACKED
   MAGNETIC NANO PARTICLE SYSTEM .......................................................................................... 50
   M S Andersson, J A De Toro, S S Lee, R Mathieu, P Nordblad

012013 GIANT MAGNETORESISTANCE IN CLUSTER-ASSEMBLED NANOSTRUCTURES: A
   QUANTITATIVE APPROACH ........................................................................................................ 53
   S Oyarzún, A D T De Sá, V Dupuis, M Hillenkamp

APPLICATIONS : DRUG DELIVERY, HYPERTHERMIA, MAGNETO-RESISTANCE

012014 STUDY OF THE HEATING CHARACTERISTICS AND MECHANISMS OF MAGNETIC
   NANO PARTICLES OVER A WIDE RANGE OF FREQUENCIES AND AMPLITUDES OF AN
   ALTERNATING MAGNETIC FIELD .................................................................................................. 56
   Ikehata, I Nagano

012015 COMPUTATIONAL STUDY ON SUPERPARAMAGNETIC HYPERTHERMIA WITH
   BIOCOMPATIBLE SPIONS TO DESTROY THE CANCER CELLS .................................................. 59
   C Caizer

Author Index