ERRATA CORRIGE NANO 2010

6-09-2010

Zhang D.	Tu-am-F-C7	Late submission	Attached Abstract
Chitra S.	We-am-E-C1	Revised title	Studies on structure evolution and stability of zeta-phase to Ag solid
Matassa R.	Th-am-A-C3	Revised Institution	Dipartimento di Chimica, Università "Sapienza"
Millan A.	Fr-pm-E-I2	Revised title	Polymer-based multifunctional magnetic nanoparticles for biomedical applications.

Kuznetsova Y.V.	Poster-Mo-056	Poster Withdrawn	
Shadlou S.	Poster-Mo-068	Poster Withdrawn	
Ramanajhan L.V.	Poster-Mo-070	Poster Withdrawn	
Falcão de Oliveira M.	Poster-Mo-080	Moved to: Poster-Th-185	
Chvoj Z.	Poster-Mo-088	Moved to: Poster-Th-181	
Ayatollahi M.	Poster-Mo-089	Poster Withdrawn	
Ng M.F.	Poster-Mo-099	Poster Withdrawn	
Zacco A.	Poster-Mo-184	Late submission	Attached Abstract
Mesquita A.	Poster-Mo-185	Moved from:Poster-Th-047	
Langer J.J.	Poster-Mo-186	Late submission	Attached Abstract
Vul A.	Poster-Tu-008	Revised Presenting A.	Presented by Eydelman E.D.
Orlov O.M.	Poster-Tu-018	Revised version	Attached Abstract
Trocha P.	Poster-Tu-022	Poster Withdrawn	
Aguiar i.M.	Poster-Tu-037	Poster Withdrawn	
Amjadi M.	Poster-Tu-048	Poster Withdrawn	
Gavioli L.	Poster-Tu-062	Poster Withdrawn	
Santana M.A.	Poster-Tu-092	Poster Withdrawn	
Dantas Linhares H.	Poster-Tu-097	Poster Withdrawn	
Ambrosio E.	Poster-Th-109	Poster Withdrawn	
Obradovic N.	Poster-Tu-139	Poster Withdrawn	
Alayo W.	Poster-Tu-183	Moved to: Poster-Th-189	Presented by Baggio-Saitovic E.
Herrera W.T.	Poster-Tu-198	Moved to: Poster-Th-190	Presented by Baggio-Saitovic E.
Hindi A.	Poster-Tu-208	Late submission	Attached Abstract
Uvarov N.F.	Poster-Th-008	Poster Withdrawn	
Asadirad M.	Poster-Th-030	Revised Presenting Auth.	Presented by Teymoory A.
Chen C.Y.	Poster-Th-049	Poster Withdrawn	
Shakir M.	Poster-Th-067	Institution Revised	The co-author Prof El-Bindary A. from Mansoura Univ. - Chemistry Dept. Faculty of Science - Demiatta - Egypt
Paalo M.	Poster-Th-094	Poster Withdrawn	
Picca R.A.	Poster-Th-115	Moved to: Poster-Tu-207	Presented by Chirizzi D.
Calandra P.	Poster-Th-082	Revised Coauthor list	Lombardo D. -Ist. per I Processi Chimico-Fisici and Pistone A. - Dept. of Industrial Chemistry and Materials Engineering -University of Messina
Park J.S.	Poster-Th-097	Poster Withdrawn	
Serra Moreno J.	Poster-Th-104 Bis	Late submission	Attached Abstract
	Poster-Th-176	Poster Withdrawn	Duplicate record

to be added in the List of Nano 2010 INDUSTRIAL SPONSOR:

AMERICAN ELEMENTS
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NANO MAGAZINE

Monday, Sept 13

TIME	ROOM A	ROOM B	ROOM C	ROOM D	ROOM E	ROOM F
8:00 – 10:45	**REGISTRATION**					
10:45 – 11:00	**ROOM E: OPENING CERIMONY**					
11:00 – 11:15						
11:15 – 11:45	**ROOM E: PL1 - S.D. Bader:** Spintronics Overview with Implications for Energy, Information and Medical Technologies *CHAIRMAN: D. Fiorani*					
11:45 – 12:00						
12:00 – 12:30	**ROOM E: PL2 - M. Prato:** Functionalized Carbon Nanotubes: Versatile Building Blocks in Nanomedicine and Materials Science *CHAIRMAN: D. Fiorani*					
12:30 – 12:45						
12:45 – 14:15	*LUNCH*					
14:15 – 15:00	**ROOM E: PL3 - F. Besenbacher:** Catalytic model systems studied by high-resolution, video-rate Scanning Tunneling Microscopy *CHAIRMAN: E. Traversa*					
15:00 – 16:00	**POSTER session 1**					
16:00 – 16:30	*COFFEE BREAK*					
	T05 - Nanoelectronics, nanodevices and sensors (MEMS, NEMS...)	**T14 - Catalysts**	**T26 - Nanomagnetism**	**T13 + T27 Nanocomposites materials + Multiscale materials**	**T07 - Materials with controlled nanostructure via chemical methods**	**T23 - Nanoporous materials**
Chairman	*H. Hahn*	*G. Ferraris*	*G.C. Hadjipanayis*	*E.J. Lavernia*	*C. Feldmann*	*J.T. De Hosson* *A. Flamini*
16:30 – 16:45	**Mo-pm-A-I1** V. Raineri	**Mo-pm-B-C1** E. Rombi	**Mo-pm-C-I1** I.K. Schuller	**Mo-pm-D-I1** T. Tseng	**Mo-pm-E-I1** L. Vayssieres	**Mo-pm-F-I1** J. Weissmüller
16:45 – 17:00		**Mo-pm-B-C2** R. Felici				
17:00 – 17:15	**Mo-pm-A-C1** M. Enculescu[1]	**Mo-pm-B-C3** N.R. El Hassan	**Mo-pm-C-I2** G. Bertotti	**Mo-pm-D-I2** L.T. Kabacoff	**Mo-pm-E-C1** I. Freris	**Mo-pm-F-I2** J.T. De Hosson
17:15 – 17:30	**Mo-pm-A-C2** V. La Ferrara	**Mo-pm-B-C4** E.V. Golubina			**Mo-pm-E-C2** L.T. Mancic	
17:30 – 17:45	**Mo-pm-A-I2** R. Kruk	**Mo-pm-B-I1** M..S. El Shall	**Mo-pm-C-C2**[2] W. Heimbrodt	**Mo-pm-D-C1** S. Kashyap	**Mo-pm-E-C3** J. Li	**Mo-pm-F-C1** R. Wurschum[3]
17:45 – 18:00			**Mo-pm-C-C3** C. de Julián Fernández	**Mo-pm-D-C2** M. A. Correa-Duarte	**Mo-pm-E-C4** A. Sugunan	**Mo-pm-F-C2** E. Detsi
18:00 – 18:15						**Mo-pm-F-C3** C. Braeuchle[4]
19:00 – 20:00	**ROOM E : JAZZ CONCERT**					

[1] **Mo-pm-A-C1 M. Enculescu** — **Presented by M. Enculescu instead of I. Enculescu**

[2] **Mo-pm-C-C1 M. Madami** — **Moved to Poster-Tu-206**

[3] **Mo-pm-F-C1 R. Wurschum** — **Upgraded from Poster-Th-169 - replaces V. Raghavan Nadar- WITHDRAWN**

[4] **Mo-pm-F-C3 C. Braeuchle** — **moved from Fr-pm-C-C1**

Tuesday, Sept 14

TIME		ROOM A	ROOM B	ROOM C	ROOM D	ROOM E	ROOM F
8:00	8:45						
8:45	9:30	**ROOM E:** **PL4 - M. Aono:** Atomic/molecular-scale control of electrochemical reactions *CHAIRMAN: H. Hahn*					
9:30	9:45						
		T05 - Nanoelectronics, nanodevices and sensors (MEMS, NEMS...)	**T02 - Nanostructured materials for energy applications**	**T26 - Nanomagnetism**	**T04 - Advanced characterization techniques of nanostructures**	**T01 - 2D molecular self assembling on surfaces and surface functionalization**	**T09 - Mechanical properties of nanostructured materials**
Chairman		*A. Bearzotti*	*A. Bieberle-Hutter*	*I.K. Schuller*	*M. Vittori*	*G. Contini*	*T. Tsakalakos*
9:45	10:00	**Tu-am-A-I1** E. Prati	**Tu-am-B-I1** Y. Ein-Eli	**Tu-am-C-I1** G.C. Hadjipanayis	**Tu-am-D-I1** K.W. Urban	**Tu-am-E-C2** F. Nepi[8]	**Tu-am-F-I1** X. Huang
10:00	10:15					**Tu-am-E-C3** I. Luzinov[8]	
10:15	10:30	**Tu-am-A-C2** N. Preda[1,2]	**Tu-am-B-C1** A. Convertino	**Tu-am-C-C1** U. Wolff	**Tu-am-D-C1** P. Moras	**Tu-am-E-C4** D. Pozzi[8]	**Tu-am-F-C1** R.Z. Valiev
10:30	10:45		**Tu-am-B-C2** M. El Khakani	**Tu-am-C-C2** G. Carlotti	**Tu-am-D-C2** T.S. Perova		**Tu-am-F-C2** A. Kuzmin
10:45	11:00	*COFFEE BREAK*					
11:00	11:15						
11:15	11:30	**Tu-am-A-I2** W.J. Loogeswaran	**Tu-am-B-C3** M. Toprak	**Tu-am-C-I2** J. Fidler	**Tu-am-D-I2** H. Amenitsch	**Tu-am-E-C5** P.A. Sokolov	**Tu-am-F-I2** L. Lu
11:30	11:45		**Tu-am-B-C4** Z.S. El Mandouh			**Tu-am-E-C6** M. Venanzi	
11:45	12:00	**Tu-am-A-C3** V.Y. Butko	**Tu-am-B-C5** V. Šepelák	**Tu-am-C-C3** V. Iannotti[3]	**Tu-am-D-I3** G. Margaritondo	**Tu-am-E-C7** O.Gorban[4]	**Tu-am-F-C3** M. Pouryazdan Panah
12:00	12:15	**Tu-am-A-C4** A. Alberti	**Tu-am-B-C6** Y.G. Mateyshina	**Tu-am-C-C4** F. Tournus		**Tu-am-E-C8** E. Lepore	**Tu-am-F-C4** G.D. Hibbard
12:15	12:30	**Tu-am-A-C5** F. Di Girolamo	**Tu-am-B-C7** E. Fabbri	**Tu-am-C-C5** M.D. Glinchuk	**Tu-am-D-C3** D. Carbone	**Tu-am-E-C9** M.C. Gimenez-Lopez	**Tu-am-F-C5** A. Singh
12:30	12:45	**Tu-am-A-C6** A. Casaburi	**Tu-am-B-C8** N. Agoudjil	**Tu-am-C-C6** V. Salgueirino	**Tu-am-D-C4** G. Martinez-Criado	**Tu-am-E-C10** P. Tiberto	**Tu-am-F-C6** Y. Ivanisenko
12:45	13:00			**Tu-am-C-C7** I.P. Suzdalev			**Tu-am-F-C7** D. Zhang[5]
13:00	14:15	*LUNCH*					
14:15	15:00	**ROOM E:** **PL5 - V. Vogel:** Playing with Forces: how the stretching of proteins can alter their functions *CHAIRMAN: M. Girasole*					
15:00	15:30	**POSTER session 2**					
15:30	16:00						
16:00	16:15	*COFFEE BREAK*					
16:15	16:30						
		T10 - Modelling and simulation of nanostructures	**T02 - Nanostructured materials for energy applications**	**T17+T21 - Atomic clusters + Atomic manipulation**	**T04 - Advanced characterization techniques of nanostructures**	**T07 - Materials with controlled nanostructure via chemical methods**	**T09 - Mechanical properties of nanostructured materials**
Chairman		*A. Amore Bonapasta*	*H.L. Tuller*	*P. Piseri*	*H. Amenitsch*	*L. Vayssieres*	*E. Bonetti*
16:30	16:45	**Tu-pm-A-I1** F. Bechstedt	**Tu-pm-B-I1** A. Bieberle-Hutter	**Tu-pm-C-I1** H. Häkkinen	**Tu-pm-D-I1** A. Cricenti	**Tu-pm-E-I1** C. Feldmann	**Tu-pm-F-I1** T. Tsakalakos
16:45	17:00						
17:00	17:15	**Tu-pm-A-C1** B.R. Bulka	**Tu-pm-B-C1** D. Pergolesi	**Tu-pm-C-I2** R. Palmer	**Tu-pm-D-I2** R. Wiesendanger	**Tu-pm-E-I2** A. De Vita	**Tu-pm-F-I2** S. Van Petegem[7]
17:15	17:30	**Tu-pm-A-C2** Y. Behnamian	**Tu-pm-B-C2** M.J. Wagner				
17:30	17:45	**Tu-pm-A-I2** J. Brickmann	**Tu-pm-B-C3** F. Deganello	**Tu-pm-C-C1** T. Mazza	**Tu-pm-D-C1** S. Licoccia	**Tu-pm-E-C1** K. Miyazawa	**Tu-pm-F-I3** E.J. Lavernia
17:45	18:00		**Tu-pm-B-C4** R. Nechache	**Tu-pm-C-C2** M. Devetta	**Tu-pm-D-C2** C. Albonetti	**Tu-pm-E-C2** M. Balucani	
18:00	18:15	**Tu-pm-A-C3** H. Jin	**Tu-pm-B-C5** R. Andrievskiy[6]	**Tu-pm-C-C3** C. Nacci	**Tu-pm-D-C3** F. Fabbri[9]		**Tu-pm-F-C1** T. Mattar

[1] **Tu-am-A-C1 K. Kral** — **WITHDRAWN**

[2] **Tu-am-A-C2 N. Preda** — **brought forward from H 10:30 - presented by N. Preda instead of P. Matei**

[3] **Tu-am-C-C3 V. Iannotti** — **Presented by V. Iannotti instead of L. Lanotte**

[4] **Tu-am-E-C7 O. Gorban** — **Upgraded from Poster-Th-6; Replaces M. Celino WITHDRAWN**

[5] **Tu-am-F-C7 D. Zhang** — **Late submission**

[6] **Tu-pm-B-C5 R. Andrievskiy** — **Upgraded from Poster-Mo-2; replaces G. Grasso moved to Th-am-B-C9**

[7] **Tu-pm-F-I2 S. Van Petegem** — **Presented by S. Van Petegem instead of H. Van Swygenhoven**

[8] **Tu-am-E-C2,3,4** — **brought forward to replace F. Mariano Neto WITHDRAWN**

[9] **Tu-pm-D-C3 F. Fabbri** — **Late submission**

Wednesday, Sept 15

TIME		ROOM A	ROOM B	ROOM C	ROOM D	ROOM E	ROOM F
8:00	8:45						
8:45	9:30	**ROOM E:** *CHAIRMAN: S. Licoccia*	**PL6 - H.L. Tuller:** Nano-Structured Materials for Next Generation Fuel Cells and Sensors				
9:30	9:45						
		T05 - Nanoelectronics, nanodevices and sensors (MEMS, NEMS...)	**T11 - Nanomedicine**	**T26 - Nanomagnetism**	**T13 + T27 Nanocomposites materials + Multiscale materials**	**T18 - Nanoparticles**	**T25 - Nanostructured semiconductors**
Chairman		*V.J. Loogeswaran*	*N. Rosato*	*M. Albrecht*	*L.T. Kabacoff*	*V. Salgueirino*	*P. De Padova*
9:45	10:00	**We-am-A-I1** YH. Geerts	**We-am-B-I1** T. Pellegrino	**We-am-C-I1** S. Laureti[2]	**We-am-D-I1** LS. Schadler	**We-am-E-I1** V.Resta[4]	**We-am-F-I1** G. Le Lay
10:00	10:15						
10:15	10:30	**We-am-A-C1** KG. Kornev	**We-am-B-C1** V. Vergaro	**We-am-C-C1** P. Kozlowski	**We-am-D-C1** F. El-Haber[3]	**We-am-E-C1** S. Chithra[5]	**We-am-F-C2** G.Tan[6,7]
10:30	10:45	**We-am-A-C2** S. Herth	**We-am-B-C2** A. Apicella[1]	**We-am-C-C2** E. Annese	**We-am-D-C2** L. Ravagnan	**We-am-E-C2** J. Kolny-Oiesiak	
10:45	11:15	*COFFEE BREAK*					
11:15	11:30	**We-am-A-C3** A. Ensafi	**We-am-B-I2** G. Battaglia	**We-am-C-I2** R. Sessoli	**We-am-D-C3** G. Varvaro	**We-am-E-C3** R. Redon	**We-am-F-I2** I. Berbezier
11:30	11:45	**We-am-A-C4** A. Forleo			**We-am-D-C4** A. Fornara	**We-am-E-C4** C. Wang	
11:45	12:00	**We-am-A-C5** A. Bearzotti	**We-am-B-C3** M. Girasole	**We-am-C-C3** A. Li Bassi	**We-am-D-C5** A. Capobianchi	**We-am-E-C5** P. Tamarat	**We-am-F-C3** Y. Kim
12:00	12:15	**We-am-A-C6** KA. Pierpauli	**We-am-B-C4** M. Malvindi	**We-am-C-C4** M. Corbetta	**We-am-D-C6** V. Provenzano	**We-am-E-C6** H.H. Hanan	**We-am-F-C4** C. Baumgart
12:15	12:30	**We-am-A-C7** R. Mosca	**We-am-B-C5** C. Mandoli	**We-am-C-C5** F. Donati	**We-am-D-C7** K. Kolipaka	**We-am-E-C7** D. Akten[8]	**We-am-F-C5** M. Ambrico
12:30	12:45	**We-am-A-C8** M. Tallarida	**We-am-B-C6** R. Salvati	**We-am-C-C6** S. Gardonio	**We-am-D-C8** C. Zhi	**We-am-E-C8** A.E. Aleksenskiy	**We-am-F-C6** V. Poborchii
12:45	13:00	**We-am-A-I2** M.S. Sarto	**We-am-B-I3** G. Caracciolo	**We-am-C-I3** A. Hernando	**We-am-D-I2** S. Grilli	**We-am-E-C9** Y.S. Park[9]	**We-am-F-C7** L. G. Quagliano
13:00	13:15					**We-am-E-C10** H.J. Dickerson	**We-am-F-C8** L. Di Gaspare
13:15	15:00	*LUNCH*					
		FREE					
19:30	23:30	*CONFERENCE BANQUET*					

[1] **We-am-B-C2**	**A. Apicella**	**Upgraded from Poster-Mo-114 Replaces C. Smid WITHDRAWN**
[2] **We-am-C-I1**	**S. Laureti**	**Presented by S. Laureti instead of D. Givord**
[3] **We-am-D-C1**	**F. El-Haber**	**Upgraded from Poster-Th-105; replaces P. Sharma - Withdrawn**
[4] **We-am-E-I1**	**V. Resta**	**Presented by V. Resta instead of L. Tapfer**
[5] **We-am-E-C1**	**S. Chithra**	**Upgraded from Poster-Tu-42; Replaces S. Ghaffari Withdrawn**
[6] **We-am-F-C1**	**L. Bagolini**	**WITHDRAWN**
[7] **We-am-F-C2**	**G.Tan**	**Upgraded from Poster-Tu-125 and brought forward from H 10.30 replaces R. Milazzo WITHDRAWN**
[8] **We-am-E-C7**	**D. Akten**	**Upgraded from Poster-Tu-72 replaces MJ. Jafari moved to Fr-am-E-C9**
[9] **We-am-E-C9**	**Y.S. Park**	**Upgraded from Poster-Tu-044 replaces G. Renaud WITHDRAWN**

Thursday, Sept 16

TIME	ROOM A	ROOM B	ROOM C	ROOM D	ROOM E	ROOM F
8:00 8:45						
8:45 9:30	**ROOM E:** **PL7 - F. Caruso:** Nanoengineered Particles for Therapeutic Delivery *CHAIRMAN: M. Venanzi*					
9:30 9:45						
	T15 - Organic-inorganic hybrid materials	**T02 - Nanostructured materials for energy applications**	**T26 - Nanomagnetism**	**T16 - Nanomaterials for information storage**	**T18 - Nanoparticles**	**T25 - Nanostructured semiconductors**
Chairman	*C. Bellitto*	*S. Licoccia*	*C. Carbone*	*J. Fidler*	*P. Tiberto*	*I. Berbezier*
9:45 10:00	**Th-am-A-I1** Y. Patiel	**Th-am-B-I1** W.J. Botta	**Th-am-C-I1** E. Coronado	**Th-am-D-I1** M. Albrecht	**Th-am-E-I1** J.M. Greneche	**Th-am-F-I1** V. Petkov
10:00 10:15						
10:15 10:30	**Th-am-A-C1** I. Miletto	**Th-am-B-C1** A. Calzolari	**Th-am-C-C1** W.A. Macedo	**Th-am-D-C1** P. Torelli	**Th-am-E-C1** D. Peddis[1]	**Th-am-F-C1** F.Ronci[2]
10:30 10:45	**Th-am-A-C2** A. Mattoni	**Th-am-B-C2** J.E. ten Elshof	**Th-am-C-C2** R.D. Shull	**Th-am-D-C2** S. Mercone	**Th-am-E-C2** A.P. Srivastava	**Th-am-F-C2** B. Nasr
10:45 11:00	*COFFEE BREAK*					
11:00 11:15						
11:15 11:30	**Th-am-A-I2** C. Pernechele	**Th-am-B-C3** A. Montone	**Th-am-C-I2** J.Tejada	**Th-am-D-I2** D. Niarchos	**Th-am-E-C3** A. Martinelli	**Th-am-F-C3** **Y. Liu**[5]
11:30 11:45		**Th-am-B-C4** B. Paci			**Th-am-E-C4** G. Campi	**Th-am-F-C4** J.P. Singh
11:45 12:00	**Th-am-A-C3** R. Matassa	**Th-am-B-C5** S. Masala	**Th-am-C-C5** P. Allia	**Th-am-D-I3** F. Albertini	**Th-am-E-C5** N. Aldea	**Th-am-F-C5** D. Mailly
12:00 12:15	**Th-am-A-C4** A. Chiolerio	**Th-am-B-C6** E. Kymakis	**Th-am-C-C6** I. Pana		**Th-am-E-C6** T.E. Konstantinova	**Th-am-F-C6** I. Miccoli[6]
12:15 12:30	**Th-am-A-C5** L. Brigo[3]	**Th-am-B-C7** H.L. Castricum	**Th-am-C-C7** M. Coisson	**Th-am-D-C3** M. Golshan	**Th-am-E-C7** D. Pohl	**Th-am-F-C7** S. Colonna
12:30 12:45	**Th-am-A-C6** S. Petroni	**Th-am-B-C8** L. Pasquini	**Th-am-C-C3** B. Panigrahy	**Th-am-D-C4** M. Longo	**Th-am-E-C8** M. Rovatti	**Th-am-F-C8** T. Stoica
12:45 13:00		**Th-am-B-C9** G. Grasso[4]	**Th-am-C-C4** V. Tuboltsev		**Th-am-E-C9** L. Kvitek[12]	
13:00 14:15	*LUNCH*					
14:15 15:00	**ROOM E:** **PL8 - E. Tosatti:** Nanofriction and nanocontact conductance: classical and quantum surprises *CHAIRMAN: F. Bechstedt*					
15:00 15:30	**POSTER Session 3**					
15:30 16:00						
16:00 16:15	*COFFEE BREAK*					
16:15 16:30						
	T15 - Organic-inorganic hybrid materials	**T02 - Nanostructured materials for energy applications**	**T03 + T20 Environment + Nanotoxicology**	**T10 - Modelling and simulation of nanostructures**	**T07 - Materials with controlled nanostructure via chemical methods**	**T19 - Carbon nanotubes and graphene**
Chairman	*C. Pernechele*	*W.J. Botta*	*L. Ghibelli*	*F. Bechstedt*	*D. Peddis*	*K. Miyazawa*
16:30 16:45	**Th-pm-A-C1** A. Amore Bonapasta	**Th-pm-B-C1** E.D. Eydelman	**Th-pm-C-I1** H.F. Krug	**Th-pm-D-I1** O. Pulci	**Th-pm-E-C1** P. Ayyub	**Th-pm-F-I1** T. Enoki
16:45 17:00	**Th-pm-A-C2** T. Bruhn	**Th-pm-B-C2** F. Di Fonzo			**Th-pm-E-C2** M. Meyns	
17:00 17:15	**Th-pm-A-C3** M. Ludemann	**Th-pm-B-C3** G. Gigli	**Th-pm-C-C1** A. Galeone[7]	**Th-pm-D-C1** N. Gorjizadeh	**Th-pm-E-C3** R. Di Mundo	**Th-pm-F-C1** L. Simon
17:15 17:30	**Th-pm-A-C4** P. Gargiani	**Th-pm-B-C4** G. Pellegrino	**Th-pm-C-C2** A. Panacek	**Th-pm-D-C2** E. Cannuccia	**Th-pm-E-C4** C. Danilenko[11]	**Th-pm-F-C2** P. De Marco
17:30 17:45	**Th-pm-A-C5** F. Fabbri	**Th-pm-B-C5** A. Persano[8]	**Th-pm-C-C3** P. Figueira[9]	**Th-pm-D-C4** S.A. Khan[10]	**Th-pm-E-C5** K. S.Kumar	**Th-pm-F-C3** S. Lizzit [13]
17:45 18:00	**Th-pm-A-C6** G. Di Santo	**Th-pm-B-C6** A. Makino	**Th-pm-C-C4** K. Abdel Halim	**Th-pm-D-C5** C. Hogan[14]	**Th-pm-E-C6** S. Chakraborty	**Th-pm-F-C4** M. Papagno

[1]	**Th-am-E-C1 D. Peddis**	**Presented by D. Peddis instead of S. Laureti**
[2]	**Th-am-F-C1 F. Ronci**	**Upgraded from Poster-Tu-146 replaces V. Müller WITHDRAWN**
[3]	**Th-am-A-C5 L. Brigo**	**Presented by L. Brigo instead of G. Grenci**
[4]	**Th-am-B-C5 G. Grasso**	**Moved from Tu-pm-B-C5**
[5]	**Th-am-F-C3 Y. Liu**	**A. Telegin WITHDRAWN replaced by Y. Liu**
[6]	**Th-am-F-C6 I. Miccoli**	**Presented by I. Miccoli instead of N. Lovergine**
[7]	**Th-pm-C-C1 A. Galeone**	**Upgraded from Poster-Mo-042 - replaces M. Sharon WITHDRAWN**
[8]	**Th-pm-B-C5 A. Persano**	**Presented by A. Persano instead of R. Krahne**
[9]	**Th-pm-C-C3 P. Figueira**	**Presented by P. Figueira instead of T. Trindade**
[10]	**Th-pm-D-C4 S.A. Khan**	**WITHDRAWN - replaced by Y.V. Vorobiev - WITHDRAWN**
[11]	**Th-pm-E-C4 C. Danilenko**	**Upgraded from Poster-Th-54 - replaces C. Meneghini WITHDRAWN**
[12]	**Th-am-E-C9 L. Kvitek**	**Moved from Fr-pm-E-C2**
[13]	**Th-pm-F-C3 S. Lizzit**	**S. Lizzit moved from Fr-pm-F-C6- R. Larciprete Moved to Fr-pm-F-C6**
[14]	**Th-pm-D-C5 C. Hogan**	**Late submission**

Friday, Sept 17

TIME		ROOM A	ROOM B	ROOM C	ROOM D	ROOM E	ROOM F
8:00	8:45						
8:45	9:30	**ROOM E:** **PL9 - S.Y. Chou:** The First 15 Years of Nanoimprint Lithography – An Enabling Engine to Nanotechnology *CHAIRMAN: R.D. Shull*					
9:30	9:45						
		T06 - Nanofabrication	**T01 - 2D molecular self assembling on surfaces and surface functionalization**	**T12 - Nanobiotechnologies**	**T13 + T27 - Nanocomposites materials + Multiscale materials**	**T18 - Nanoparticles**	**T19 - Carbon nanotubes and graphene**
Chairman		*G. Faini*	*M. Venanzi*	*J.M. Seddon*	*S. Iannotta*	*J.M. Greneche*	*R. Paul*
9:45	10:15	**Fr-am-A-I1** L. Vila	**Fr-am-B-I1** F. Rosei	**Fr-am-C-I1** F. Biscarini	**Fr-am-D-I1** M.S. Aly-Hassan	Fr-am-E-I1 E.R. Leite	**Fr-am-F-I1** M. De Crescenzi
10:15	10:30	**Fr-am-A-C1** A. Cattoni	**Fr-am-B-C1** C. Kumpf	**Fr-am-C-C1** T.V. Torchynska	**Fr-am-D-C1** K. Kanjanapongkul	**Fr-am-E-C1** R. Prucek	**Fr-am-F-C2** M. Fratini[3]
10:30	10:45	**Fr-am-A-C2** S. Prezioso	**Fr-am-B-C2** M. Scardamaglia	**Fr-am-C-C2** N. Kasyanenko	**Fr-am-D-C2** Y. Mugnier	**Fr-am-E-C2** G. Caruntu	
10:45	11:00	*COFFEE BREAK*					
11:00	11:15						
11:15	11:30	**Fr-am-A-I2** F. Gelain	**Fr-am-B-C3** P. Gori	**Fr-am-C-I2** F. Stellacci	**Fr-am-D-C3** I Bracko	**Fr-am-E-C3** C. Srivastava	**Fr-am-F-C3** V. Grossi
11:30	11:45		**Fr-am-B-C4** L. Ottaviano		**Fr-am-D-C4** K. Rumpf[2]	**Fr-am-E-C5** X. Su[4]	**Fr-am-F-C4** F. Mohammadzadeh
11:45	12:00	**Fr-am-A-C3** R. Pugin	**Fr-am-B-C5** M.V. Nardi	**Fr-am-C-C3** A.G. Kanaras	**Fr-am-D-C5** M.S. Ersoy	**Fr-am-E-C6** K.C. Singh	**Fr-am-F-C5** C. Iamsamai
12:00	12:15	**Fr-am-A-C4** M. Alubaidy	**Fr-am-B-C6** N. Abdurakhmanova	**Fr-am-C-C4** R. Bertacco	**Fr-am-D-C6** A.J. Zarbin	**Fr-am-E-C7** P. Ammendola	**Fr-am-F-C6** V. Le Borgne
12:15	12:30	**Fr-am-A-C5** N. Rossetto	**Fr-am-B-C7** G. Bussetti	**Fr-am-C-C5** J. Gagner[1]	**Fr-am-D-C7** V. Cecen	**Fr-am-E-C8** B. Ryu	**Fr-am-F-C8** A.K. Mitra[5]
12:30	12:45	**Fr-am-A-C6** M. Klonner	**Fr-am-B-C8** M. Pedio	**Fr-am-C-C6** M.A. Martins	**Fr-am-D-C8** A. Heilmann	**Fr-am-E-C9** M.J. Jafari[6]	
12:45	14:15	*LUNCH*					
14:15	15:00	**ROOM E:** **PL10 - H. Arakawa:** Development of highly efficient dye-sensitized solar cell sub-modules *CHAIRMAN: E. Traversa*					
15:00	15:30	*COFFEE BREAK*					
		T24 - Nanometrology	**T08 - Nanophotonics**	**T12 - Nanobiotechnologies**	**T22 - Defects in nanostructures**	**T18 - Nanoparticles**	**T19 - Carbon nanotubes and graphene**
Chairman		*R.D. Shull*	*S. Orlando*	*F. Biscarini*	*V. Petkov*	*E.Agostinelli*	*V. Grossi*
15:30	15:45	**Fr-pm-A-I1** C. Höppener[7]	**Fr-pm-B-I1** B. Hecht	**Fr-pm-C-I1** J.M. Seddon	**Fr-pm-D-I1** F. Tuomisto	**Fr-pm-E-I2** A. Millán[9]	**Fr-pm-F-C1** D. Mirabile Gattia[10]
15:45	16:00						**Fr-pm-F-C2** R. Paul
16:00	16:15	**Fr-pm-A-I2** Z. Li	**Fr-pm-B-C1** S. Camelio	**Fr-pm-C-C2** A. Cedola[8]	**Fr-pm-D-I2** W. Vandervorst	Fr-pm-E-C1 S. Chirachanchai	**Fr-pm-F-C3** C. Portesi
16:15	16:30		**Fr-pm-B-C2** L.H. Shao	**Fr-pm-C-C3** J. Qin		**Fr-pm-E-C3** H. Yao[11]	**Fr-pm-F-C4** R.K. Joshi
16:30	16:45	**Fr-pm-A-C1** K. Dirscherl	**Fr-pm-B-C3** M. De Seta	**Fr-pm-C-C4** V. Brunetti	**Fr-pm-D-C1** U. Erb	**Fr-pm-E-C4** K. Skartsila	**Fr-pm-F-C5** A. Wurl
16:45	17:00	**Fr-pm-A-C2** G. Berti	**Fr-pm-B-C4** M. Donarelli		**Fr-pm-D-C2** A. Rinaldi		**Fr-pm-F-C6** R. Larciprete[12]
17:00	17:15						
17:15	17:30	**ROOM E:** **CONCLUDING REMARKS**					

[1] **Fr-am-C-C5**	**J. Gagner**	**Upgraded from Poster-Mo-131- Replaces P. Sahoo WITHDRAWN**
[2] **Fr-am-D-C4**	**K. Rumpf**	**Upgraded from Poster-Th-125 replaces D. Manfredi moved to Poster-Th-186**
[3] **Fr-am-F-C2**	**M. Fratini**	**Brought forward from H 10:30 to replace S. Bagiante WITHDRAWN**
[4] **Fr-am-E-C5**	**X. Su**	**Replaces M. Anusha - WITHDRAWN**
[5] **Fr-am-E-C7**	**A.K. Mitra**	**Brought forward from H 12.30 Replaces Y. Hirooka - WITHDRAWN**
[6] **FR-am-F-C9**	**M. J. Jafari**	**Moved from We-am-E-C7**
[7] **Fr-am-A-I1**	**C. Hoeppener**	**Presented by C. Hoeppener instead of H. Fuchs**
[8] **Fr-pm-C-C1**	**A. Cedola**	**A. Cedola brought forward to replace C. Bräuchle Moved to Mo-pm-F-C3**
[9] **Fr-pm-E-I2**	**A. Millán**	**Presented by A. Millán instead of F. Palacio**
[10] **Fr-pm-F-C1**	**D. Mirabile Gattia**	**Presented by D. Mirabile Gattia instead of R. Di Paola**
[11] **Fr-pm-E-C3**	**H. Yao**	**L. Kvitek Moved to Thursday Th-am-E-C9; C3 and C4 brought forward**
[12] **Fr-pm-F-C6**	**S. Lizzit**	**R. Larciprete moved from Th-pm-F-C3 - S. Lizzit Moved to Th-pm-F-C3**

Mo-pm-F-C1 Electrochemical tuning of the electrical resistance of nanoporous gold prepared by dealloying.

P. Wahl[1], Th. Traußnig[1], Hai-Jun Jin[2], S. Landgraf[3], J. Weissmüller[2,4], and R. Würschum[1]

[1]Institute of Materials Physics, Graz Univ. of Technology, Petersgasse 16, 8010 Graz, Austria; [2]Institute of Nanotechnology, Karlsruher Institute of Technology, 76021 Karlsruhe, Germany; [3]Institute of Physical &. Theoret. Chemistry, Graz Univ. of Technology, Graz, Austria; [4]Univ. of Saarland, Techn. Phys. Saarbrücken, Germany

Electric field-induced tuning of material properties is usually restricted to nonmetals such as semiconductors and piezoelectric ceramics. Studies on the property tuning (e.g., resistance tuning [1]) of metals have been initiated making use of nanocomposites of porous nanophase metals and liquid electrolytes. Triggered by recent findings that the surface stress-charge response of nanoporous gold sensitively depends on adsorbed oxygen [2], the variation of the electrical resistance of nanoporous gold upon electrochemical charging in an aqueous electrolyte is studied. Nanoporous gold is prepared by dealloying. Reversible variations of the resistance of nanoporous Au up to ca. 4% and 45% occur due to the formation of an electrochemical double layer and due to the reversible adsorption of oxygen, respectively. The electrochemically induced variation of the charge carrier density by far cannot account for the observed resistance variation, indicating that this variation is primarily caused by charge-induced modifications of the charge carrier scattering at the solid-electrolyte interface. The relative resistance variation of nanoporous Au with surface charging is found to be much higher than in porous nanocrystalline Pt [1] due to the reduced resistance contribution from internal grain boundaries. The electrochemically induced resistance variation of nanoporous Au is also substantially higher than that reported for thin noble metal films in electrolytes.
Financial support by the FWF Austrian Science Fund is appreciated (project S10405-N16).

[1] M. Sagmeister, U. Brossmann, S. Landgraf, R. Würschum, Phys. Rev. Lett. 96 (2006) 156601
[2] Hai-Jun Jin, S. Parida, D. Kramer, J. Weissmüller, Surface Science 602 (2008) 3588

Tu-am-F-C7 Synthesis, Microstructure and Mechanical Properties of Nanocrystalline and Ultrafine Grained Cu and Al Matrix Nanocomposites Produced by Powder Consolidation

Deliang Zhang[1*], Aamir Mukhtar[1], Amro A.Gazawi[1], Charlie Kong[2], Paul Munroe[2]

Waikato Centre for Advanced Materials (WaiCAM), School of Engineering, University of Waikato, Private Bag 3105, Hamilton, New Zealand

[2]Electron Microscopy Unit, University of New South Wales, Sydney, 2052, Australia

Nanocrystalline Cu and Al matrix nanocomposite powders with compositions of Cu-(2.5-10vol.%)Al_2O_3 and Al-(2.5-10vol.%)Al_2O_3 have been produced by high energy mechanical milling (HEMM) of Cu powder/Al_2O_3 nanopowder and Al powder/Al_2O_3 nanopowder mixtures. Such nanostructured powders were consolidated into bulk nanocrystalline or ultrafine grained Cu and Al matrix nanocomposites by high strain powder compact forging and powder compact extrusion. The microstructures and microhardness of the powder particles and the microstructures and mechanical properties (including microhardness, tensile yield strength, fracture strength and elongation to fracture) of the consolidated samples of different compositions were studied. Attempt has been made to establish the effects of the volume fraction of Al_2O_3 nanoparticles on the level of powder consolidation and mechanical properties of the bulk materials. This paper is to present and discuss the major findings from the experimental study and associated theoretical thinking.

(Corresponding and presenting author, e-mail: d.zhang@waikato.ac.nz)

Tu-pm-D-C3 Optically driven reversible matter motion in thin films containing azobenzene derivatives.

F. Fabbri[1,2], Y. Lassailly [1], S. Monaco[2], J.P. Boilot [1], K. Lahil [1] and J. Peretti [1]

[1]Laboratoire de Physique de la Matière Condensée – Ecole Polytechnique, CNRS, 91128 Palaiseau, France; [2]DIS – Università La Sapienza, Via Ariosto 25, 00185 Roma.

In the last two decades, spectacular photo-mechanical phenomena observed in materials containing azobenzene derivatives have drawn great attention [1]. They result from the mechanical work associated with the azobenzene molecule photo-isomerization under absorption of a photon. In thin polymer films, in particular, photo-induced matter displacement has been widely reported. It is commonly assumed that the matter transport occurs from the illuminated zones towards the darker zones, its efficiency depending on the light polarization. Several models have been proposed in order to describe this phenomenon but a realistic description coherent with all the experimental observations is still lacking.
We present here our study of the photo-induced matter motion observed in thin azo-polymer films, in the case of organic and inorganic matrices. By using coupled local-probe techniques we obtain a real-time and in-situ correlated measurement of the material deformation and of the local electromagnetic field, at nanoscale [2]. We show the existence of two distinct, reversible, directional mechanisms that govern the matter motion. One is driven by the light intensity spatial distribution and its efficiency strongly depends on the nature of the matrix. The other one is driven by the light polarization spatial distribution and its efficiency is independent from the nature of the matrix. For both mechanisms, we provide a simple model that is coherent with observations so far reported. Finally, we demonstrate the exploitability of the photo-induced reversible directional motion in various applicative domains such as nano-actuation and nano-fabrication.

[1] C. J. Barret et al. Soft Matter 3 (2007) 1249
[2] P. Bertrand et al. J. App. Phys. 83 (1998) 6834

Tu-pm-D-C5 Competition between defect formation, stress, and chemical bonding at the nanoscale: the curious case of GaSb(001)

Conor Hogan, Rita Magri, Rodolfo Del Sole
CNR-ISM Rome, ETSF and Department of Physics "Tor Vergata", Roma Italy

GaSb has proven potential in optoelectronics and as a substrate for growth of low power consumption heterostructure devices. When combined with InAs it exhibits unusual broken gap alignments which have been exploited to reveal interesting confinement driven metal/insulator transition and excitonic insulators. Moreover, the large spin-orbit coupling in these narrow gap systems makes them promising for high speed spintronic devices[1]. Hence, precise control over the atomic structure of the surface and interfacial regions is of fundamental importance.

Curiously, all III-V(001) surfaces in the V-rich regime stabilize in the well known c(4x4) reconstruction, with the exception of GaSb. In fact, it is often cited as the archetypal example of a simple clean surface which breaks the electron counting rule (ECR) of semiconductor surfaces[2], forming a weakly metallic phase. Recently [3] we described a mechanism of surface stabilization on the GaSb(001) surface which allows the ECR to be fulfilled. The driving force behind the stability lies in the formation of surface Ga antisite defects, first proposed on GaSb(001) by Houze and coworkers [4].

In this presentation we explore, using first principles calculations, the competing nanoscale processes leading to stabilization on GaSb(001) and on other III-V(001) surfaces. The results are supported by simulations of reflectance anisotropy spectroscopy (RAS), for which the roles of the various structural motifs and spin-orbit coupling is outlined.

[1] Yu. D. Glinka et al., Appl. Phys. Lett. 81, 220 (2002).
[2] L. Whitman et al, Phys. Rev. Lett 79, 693 (1997).
[3] C. Hogan, R. Magri, R. Del Sole, Phys. Rev. Lett 104, 157402 (2010).
[4] J. Houze et al, Phys. Rev. B 76, 205303 (2007).

Fr-pm-E-I2 Polymer-based multifunctional magnetic nanoparticles for biomedical applications

A. Millán, R. Piñol, and F. Palacio
Instituto de Ciencia de Materiales de Aragón, CSIC – Universidad de Zaragoza, Departamento de Física de la Materia Condensada, Facultad de Ciencias - 50009 Zaragoza. Spain

Superparamagnetic nanoparticles can serve as contrast agents in magnetic resonance image (MRI) for diagnostic techniques, they can be also made resonantly respond to a time-varying magnetic field which results in local generation of heat in hyperthermia therapies or they can be used as part of a delivery system in loco-regional therapies. Such variety of uses strongly depends of the ferrofluid properties and of the structural and magnetic behaviour of the composing superparamagnetic nanoparticles. In addition to typical materials design issues, low toxicity and good hematologic response in the ferrofluids are essential requirements for many biomedical applications. Here we present magnetic nanoparticles prepared inside a polymeric matrix, which can be disaggregated in a stable colloidal magnetic fluid. By copolymerisation the polymer can be tailored to include polyethilenglycol groups and anchoring terminals to attach chemicals, like drugs and luminescent groups, or biological entities, like proteids and antibodies and potentially a molecular thermometer. Magnetic, toxicological and hematological properties of such nanofunctional multiplatform are discussed.

Poster-Mo-184 Use of nanostructured silica to obtain a new filler from Municipal Solid Waste Incinerator (MSWI) fly ash: preliminary results about re-use.

A. Zacco[1], E. Bontempi[1], A. Gianoncelli[1], R. Ardesi[1] , S. Sacrato[1] and L.E. Depero[1]

[1]Laboratory of Chemistry for Technology, University of Brescia, Via Branze 38, 25123 Brescia.

The MSWI fly ash represents a potential health hazard for its high heavy metal content. Fly ash is commonly disposed in specific landfills which prevent leaching of pollutants into underground aquifer. With a more ecological aim, several technologies (thermal treatment, physical/chemical separation, and stabilization/solidification techniques) have been developed for treatment of fly ash to obtain new inert materials. Moreover, re-use of these materials are strictly dependent by their physic and mechanical features. Examples are clinkering, road asphaltation and some construction work where specific performances are requested.

At the University of Brescia (Italy) a new process has been developed to inertise fly ash, based on the use of nanostructured colloidal silica medium. The new inertisation technology involves a low temperature reaction and produces a final material (COSMOS-Colloidal Silica Medium to Obtain Safe inert) that can be employed as filler in several application, mainly considering construction materials. The project is supported by LIFE financial instrument of the European Community (LIFE+ 2008 project ENV/IT/000434).

In this work we present first results about re-use of COSMOS as filler in different high quality controlled mortar materials.

Poster-Mo-186 Do white light filaments be generated in nanostructured polyaniline LED?

J.J. Langer, M. Kalisz, and S. Golczak
A. Miciwicz University in Poznan, Faculty of Chemistry, Laboratory for Materials Physicochemistry and Nanotechnology, Grunwaldzka 10, 63-100 Srem, Poland

Recently, one of non-linear optical effects (the stimulated Raman scattering, SRS) has been found in the light generated by a nano-structured polyaniline LED [1]. The geometry, intensity and spectral characteristics of the light – a white beam collimated to a high degree – are very close to that observed in the case of so-called the white light filament (WLF), generated by short, powerful laser pulses in optically transparent materials, including gases (the air) [2].
The electric field of the radiation generated in our LED is strong enough to induce non-linear optical effects, as SRS [1], including the non-linear Kerr effect and plasma, which are responsible for formation of white light filaments - in our case inside the active material (polyaniline modified by strong radiation) and at a short distance in the air.
This is the first observation of WLF in a non-transparent material, in this case a conducting nano-structured polymer, owing to its unique properties and extreme excitation in the LED.

[1] J. J. Langer, B. Miładowski, S. Golczak, K. Langer, P. Stefaniak, A. Adamczak, M. Andrzejewska, L. Sójka and M. Kalisz, J. Mater. Chem., 20 (2010) 3859–3862
[2] L Bergé, S Skupin, R Nuter, J Kasparian and J-P Wolf, Rep. Prog. Phys. 71 (2008) 109801

Poster-Tu-018 Research of SONOS non -volatile memory element features

Oleg Orlov[1], Nikolay Shelepin[1], Frank Meyer[2], Uwe Paschen[2], Holger Vogt[2]
[1]Mikron JSC, 1st Zapadny proezd 12, Bldg. 1, Zelenograd, Moscow, 124460, Russia, o_orlov@mikron.ru; [2]Fraunhofer-Institut Mikroelektronische Schaltungen und Systeme (IMS), Finkenstr. 61, D-47057 Duisburg, Germany.

NVM ICs comprise additional high voltage blocks to provide information re-writing in the memory array. Attempts to reduce NVM cell reprogramming voltage and make the process compatible to CMOS are considered an actual task [1, 2]. Currently p- and n-type MONOS transistor samples with re-writing voltage about 8-9V have been fabricated. This paper deals with p- and n-type SONOS NVM cells, investigations with respect to different choices of major ONO stack parameters were carried out[2, 3]. Based on physical analysis and simulation computation certain ranges of key layer thicknesses were taken for performance evaluation: tunneling oxide thickness from 2.0 to 2.5 nm, blocking oxide thickness 5.0 nm and nitride thickness within the range 5.0 - 8.0 nm. All major cell operation states were analyzed: writing, erasing of information and storage. Regarding n-type SONOS NVM cells writing was conducted under the following conditions: Vd = Vs = Vsub = 0 V, Vg = 9 V, where d – drain, s – source, g – gate and sub stands for "substrate". Erasing conditions were taken as Vd = Vs = Vsub = 0 V, Vg = – 9 V. In case of p-type cell all the voltages were inverted. For SONOS NVM test structures (W/L =50/50) the following dependencies were obtained:

- threshold voltage (Vt) dependence upon programming voltage value;
- threshold voltage dependence upon programming pulse duration with programming voltage –9V and +9V;
- threshold voltage dependence upon number of programming pulses +9V and –9V.

It was found that repeatable threshold voltage shift among all the samples is repeatable for corresponding programming conditions. Acceptable writing characteristics with memory windows of about 2 V after reprogramming were obtained only for samples with nitride thickness of 8.0 nm. For such a structure optimal operation conditions were considered as follows: writing and erasing voltage 8-9 V; reprogramming cycle duration 5 – 10 ms. This operation mode provides more than 10^5 cycles available. SONOS NVM cells are very sensitive to the quality and repeatability of such process steps as tunneling oxide, blocking oxide, nitride, poly-silicon gate deposition along with consequent doping, and respectively it is very sensitive to the quality and condition of layers boundaries and interfaces within the ONO structure. These processing steps are responsible for basic SONOS NVM cell parameters and in general are compatible with CMOS processes. Evaluation of storage time based on approximation for long periods demonstrate storage times of about one hundred years with room temperature condition and taking 0.5 V memory window as a criterion.

1. S.M. Sze. Physics of Semiconductor Devices. John Willey and Sons, New York, 1981
2. J. Bu, M. H. White, /Design considerations in scaled. SONOS nonvolatile memory device //, Solid-State Electronics., vol. 45, pp. 113-120 (2001)
3. V. A. Gritsenko, H. Wong, J. B. Xu et al., J. Appl. Phys. 86, 3234 (1999)

Poster-Tu-208 Synthesis of Silver Nanoparticles and Mediate differential Responses in Some Liver And Kidney Functions During Skin Wound Healing

Awatif A. Hendi
Physics Department,Faculty of science,King Saud University,Riyadh 11321,P.O.Box.1846, Saudi Arabia Email:ahindi@ksu.edu.sa awatif.hindi@yahoo.com

We synthesis Silver nano particles in two shapes one in spherical shape the other one in nanocage.
Then Spherical nanoSilver has been used for the treatment of medical ailments for over 100 years due to its natural antibacterial and antifungal properties. In this study, silver nanoparticles were synthesized, evaluated for its wound healing activity and its effect in some functions of the liver and kidney. We investigated the wound-healing properties of silver nanoparticles in an animal model and found that rapid healing and improved cosmetic appearance occur within 15 days. Furthermore, we showed that silver nanoparticles exert positive effects through their antimicrobial properties, reduction in wound inflammation, and modulation in some of liver and kidney functions during Skin wound Healing .
These results have given insight into the actions of silver and have provided a novel therapeutic direction for wound treatment in clinical practice.

Poster-Th-104Bis Immobilization of polysaccharides in nanostructured conducting polypyrrole

J. Serra Moreno, S. Panero
Chemistry Department, Sapienza University of Rome, Piazzale Aldo Moro 5, 00185 Rome, Italy

Different hyaluronan derivatives promise to be useful in a whole range of clinical applications thanks to their varied biological properties. In the present work, the Electrochemistry and Nanotechnology for Advanced Materials (ENAM) group has electrochemically synthesized composite films comprising active polysaccharides (PSacc) and the conducting polymer polypyrrole (PPy). PPy/polysaccharides (PPy/PSacc) composite materials are promising candidates for tissue engineering and wound healing applications that may benefit from electrical stimulation. The incorporation of different hyaluronans [1] as doping anions, namely hyaluronic acid (HA), heparin (Hep) and chondroitin-4-sulphate (CSA) were controlled by varying key conditions of polymer synthesis (i.e. applied current and synthesis time). The resulting composite polymers were electroactive after synthesis and the amount of incorporated polysaccharides in the PPy matrix can be increased by choosing the proper doping agent. The PPy/PSacc films exhibit good electrical and electrochemical properties, displaying no significant loss of electroactivity after prolonged redox cyclations. In addition, the thin films show a stable interface, only adsorption phenomena occurs, when immersed in phosphate buffer solution at 37°C mimicking physiological conditions. Large interest has been also devoted to the realization of nanostructured materials in view of their possible application as biosensors. We focus our attention on the electropolymerization of pyrrole inside the pores of alumina-based membranes using a large anion to neutralize the charge. The polyanionic nature of the doping polysaccharides allow to interact with the wall pore leading to the well ordered polymeric nanotubes [2]. Indeed, this positive interaction is reflected during the polymerization kinetics and in the optimized electrochemical properties. In conclusion, the PPy/PSacc nanotubes could be suited for use in a polypyrrole-based biomaterial.

[1] Z. Samec et al. Electrochem. Comm. 5 (2003) 867
[2] J. Serra Moreno et al. Electrochimica Acta 53 (2008) 2154