

# CURRICULUM VITAE

NAME: **MARIA VALLET REGI**  
BIRTH (place, year): La Palmas, Spain, 1946  
ADDRESS: Department of Inorganic and Bioinorganic Chemistry, Faculty of Pharmacy,  
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Scientific IDs: ResearcherID: M-3378-2014, ORCID: 0000-0002-6104-4889  
Scopus: 7102671566, 6503856606, 7006864325  
<https://scholar.google.es/citations?user=viPyl4EAAA&hl=es&oi=ao>  
Webpage: <https://www.ucm.es/valletregigroup>

## EDUCATION

1974 Ph.D. Complutense University, Inorganic Chemistry, Solid State  
1969 M.S. Complutense University, Inorganic Chemistry  
1964 Bachelor in Chemistry University Complutense of Madrid

## PROFESSIONAL EMPLOYMENT

2016-,... Emeritus ERC Professor, Complutense University  
2016 Visiting Professor at the Cagliari University, Italy  
1992 Visiting Professor at the National Institute for Research in Inorganic Materials, Japan  
1991- ... Full Professor Inorganic & Bioinorganic Chemistry Department, Complutense University  
1989 Visiting Professor at the Structural Chemistry Department, Stockholm University, Sweden.  
1986, 87, 88 Visiting Professor, *Laboratoire de Cristallographie*, C.N.R.S. Grenoble, France  
1982, 83 Visiting Professor, *Laboratoire Genie Physique*. Institute National Polytechnique. Grenoble.  
1971-90 Associate Professor Inorganic Chemistry Department, Complutense University  
1969-71 Assistant Professor Inorganic Chemistry Department, Complutense University

## RESEARCH AFILIATIONS


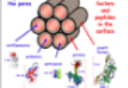
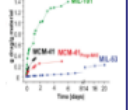
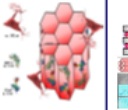
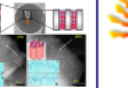
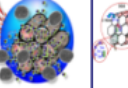
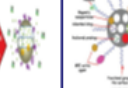

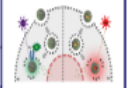
- Leader of the Smart Biomaterials Research Group (GIBI) at Department of Inorganic and Bioinorganic Chemistry of UCM integrated in the International Campus Moncloa.
- Leader of group in the Biomedical Research Networking Centre on Bioengineering, Biomaterials and Nanomedicine (CIBER-BBN). Madrid.
- Leader of group in the Research Institute in Health of the Hospital 12 de Octubre (i+12)

## RESEARCH FACTS

Author or co-author of over 710 articles, 10 books, 5 as editor, 54 books chapters, 11 patents and >670 communications to Congresses where he taught > 60 plenary and invited lectures.

- h-index = 85 ( Google Scholar), 75 (Scopus), 73 (ISI Web of Science)
- Citations >33400
- i10-index = 408
- Rank 1<sup>st</sup> of the UCM Professors after the Bibliometric portal of UCM in terms of the h-index, according to the database Scopus of Elsevier (February 2018).

- Rank 55<sup>th</sup> among the 37,819 scientists working in Spanish institutions from data collected in December 2016 in ACUMEN project from European Commission 7<sup>th</sup> Framework Program and intramural of CSIC.
- Quality of her publications: >60% of the publications in Q1 Journals (first quartile of its category), >40% in D1 Journals (first decile of its category). Moreover, eleven articles are top 1% by number of citations (See Table).
- Interdisciplinarity of her research: WoS classifies her publications in > 50 Knowledge Areas with great impact on many. Thus, based on Maria Vallet's h-index that is 85, if the h- index is calculated taking into account only its publications in each of the Areas, there are very high index-h values such as 62 in Materials Science (current second Spanish researcher, first for several decades), Chemistry 61, Engineering 55, Physics 52, etc.

 <b>First 1% of the most cited articles in its academic field (Web of Science)</b>										
Cites: <b>1932</b> I.F.: <b>11.994</b>	Cites: <b>989</b> I.F.: <b>13.858</b>	Cites: <b>344</b> I.F.: <b>6.319</b>	Cites: <b>316</b> I.F.: <b>6,216</b>	Cites: <b>280</b> I.F.: <b>13.942</b>	Cites: <b>261</b> I.F.: <b>38.618</b>	Cites: <b>164</b> I.F.: <b>9.466</b>	Cites: <b>153</b> I.F.: <b>4,210</b>	Cites: <b>143</b> I.F.: <b>6.626</b>	Cites: <b>110</b> I.F.: <b>5.657</b>	Cites: <b>30</b> I.F.: <b>5.657</b>
Angew. Chem. Inf. Ed. 46, 7548-7558, 2007 	J. Am. Chem. Soc. 130 (21) 6774-6780 2008 	Acta Biomaterialia. 6, 2874-2888 2010 	Chem. Eng. J. 137, 30-37 2008 	ACS Nano. 5 (2), 1259-1266 2011 	Chem. Soc. Rev. 40 (2), 596-607 2011 	Chem. Mater. 24, 517-524 2012 	Biomater. Sci. 1, 114-134 2013 	J. Mater. Chem. 12, 1634-1643 2014 	Expert Opin. Drug Del. 12, 319-337 2015 	Expert Opin. Drug Del. 14 (2) 229-243 2017 

### RESEARCH INTERESTS

- Biomaterials for bone regeneration
- Bioceramics with antimicrobial applications
- Stimulus-response systems for gene transfer, osteoporosis treatments and solid tumors

### SELECTED AWARDS AND HONORS

- National Research Prize in Engineering “Leonardo Torres Quevedo”, Education Ministry, 2008
- Research Prize in Sciences “Miguel Catalán” of the Autonomous Community of Madrid, 2013
- Gold Medal of the Spanish Royal Society of Chemistry (RSEQ), 2011.
- French-Spanish Prize “Catalán Sabatier” of the French Chemical Society, 2000.
- Prize in Inorganic Chemistry of the Spanish Royal Society of Chemistry (RSEQ). 2008
- Research Prize of the Business Federation of Spanish Chemical Industries (FEIQUE), 2011.
- IUPAC Distinguished Woman in Chemistry and Chemical Engineering, 2013.
- Lilly Award to the Distinguished Career in Chemistry, 2016.
- Julio Peláez Award to Pioneer Women in Sciences, Physics, Chemistry and Mathematics, 2017.
- Doctor *Honoris Causa* by the Basque Country University, 2013.
- Doctor *Honoris Causa* by the Universidad Jaime I, Castellón, Spain. 2015.

### ACADEMY MEMBERSHIP

- Fellow of the Spanish Royal Academy of Engineering (RAI), Medal LII, since 2004.
- Fellow of the Spanish Royal Academy of Pharmacy (RANF), Medal XLII, since 2011.
- Elected Honorary Member of the Materials Research Society of India, since 1997.
- International College of Fellows of Biomaterials Science and Engineering (ICF-BSE) since 2012.
- Fellow of the American Institute for Medical and Biological Engineering (AIMBE) since 2017

### RESEARCH STANCES IN COOPERATION PROGRAMS AND INTEGRATED ACTIONS

2007,08	Unversitaet Duisburg-Essen. Germany
2006, 08	CNRS-Université de Nantes. France

2002,03	Université de Paris la Sorbonne. France
1997,98,99,00,01	Universidade de Aveiro. Portugal
1996	Oxford University. United Kingdom
1992	Laboratoire de Genie Physique. Institute National Polytechnique de Grenoble. France
1991	Department of Electrical Engineering Thessaloniki University. Greece
1989, 92	Laboratorio de Resonancias Magnéticas del Centro Atómico de Bariloche. Argentina
1983,84,85,87,88	Laboratoire de Chimie du Solide, Talence, Bourdeoux, France

## **RESEARCH PROJECTS**

- > 95 research projects and research networks, in most of them as main researcher. Total fundraising > 12 M€
- Highlighted current projects:
  - Recipient of the Advanced Grant of the European Research Council (ERC-2015-AdG) "Polyvalent mesoporous nanosystem for bone disease", VERDI 2016-2021. 2.5 M€
  - Principal Investigator of "Polyvalent nanosystem able to bring solutions for infected bone with cancer and osteoporotic" STRAUSS. Ministerio de Economía y Competitividad. MAT2015-64831-R, 2016-18. 300.000 €
  - Principal Investigator of GIBI in "Mesoporous matrices for localized pH-triggered release of therapeutic ions and drugs" MOZART. NMP-06-2015-685872. ERC Horizon 2020. 2015-201. 265.000 €.

## **SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS**

- Supervised 30 works of undergraduate students, 10 Master of Advanced Studies of graduate students, 20 Ph.D. works and 22 postdoctoral fellows.
- Her doctoral students were integrated successfully into the labor market as professors or senior researchers in universities and scientific laboratories:
  - Marina Parras, Professor at UCM
  - Ester García, Victoria Cabañas, Aurea Varela, Julio Ramirez, Juan Peña, Daniel Arcos, Associate Professors at the UCM
  - José Alonso, Luis Rodriguez, Scientific Researchers CSIC
  - Isabel Izquierdo, Sandra Sánchez, Contracted doctor professors at the UCM
  - Francisco Balas, Patricia Horcajada Ramón y Cajal contracted
  - Eduardo Ruiz researcher at RC Surgeons Irlanda
  - Adolfo López (MedinCell-Montpellier), Alejandra Nieto (F. Hoffman-La Roche Suiza), Sussette Padilla (AzureBio SL),..
- Numerous foreign pre- and postdoctoral student are performing stances in her laboratories.

## **HIGHLIGHTS TEACHING**

- Setting, for the first time in Spanish degrees (Pharmacy Materials Engineering) of the Biomaterials subject
- Coordinator of the interuniversity doctorate course in Biomaterials UCM-UAM, 1999-2010.
- Doctorate course "Cirugía del aparato locomotor"
- Coordinator of the doctorate course with Quality Mention "Materiales Inorgánicos" UCM
- Teaching in several doctorates with Quality Mention (Universidad del País Vasco, Politécnica de Zaragoza, Politécnica de Cataluña, Universidad de Murcia, Universidad de Valladolid, ..).
- Director of several Courses and Summer Schools: UIMP, UCM-El Escorial, SICs-UCM,...
- Lectures as invited Professor at 16 doctoral programs and 12 master's programs.
- Classes invited on "Biomaterials" in 16 Spanish universities and 6 European.
- Courses about Biomaterials in Spain, Mexico, Argentina and Colombia.

- Besides, based on her own social conscience, she actively engages in dissemination activities (>100 activities).

### **ORGANISATION OF SCIENTIFIC MEETINGS**

- Organizer of >8 selected international Conferences and meetings
- Member of numerous national (>10) and international (>30) committees.

### **INSTITUTIONAL RESPONSIBILITIES**

- Member of the “Science for peace steering group” of the NATO, 1999-2003.
- Evaluator of the National Research Program “Smart Materials” (NRP 62) of the Swiss National Science Foundation (SNSF) and Swiss Innovation Promotion Agency (CTI). May 2010.
- Member of Scientific advisory board (SAB) of EXSELENT. University of Stockholm. 2009.
- Advisor of the Materials for the Future Cluster. Project: “The University City of Moncloa: a Campus of International Excellence in the City of Madrid”. U.C.M. 2009-2015.
- Member of the International Scientific Committee of Basque Center for Materials Applications & Nanostructure 2014....
- Evaluator of the proposals for Euronanomed and more than 10 Spanish Quality Agencies.
- Panel Member for the panel PE8, in the European Research Council (ERC) Consolidator Grant.
- Spanish Royal Society of Chemistry (R.S.E.Q.) Member and Vice-president from 1999 to 2007

### **COMMISSIONS OF TRUST**

- President of the Advisory Committee (Chemistry) of the National Commission for the evaluation of research activity (Ministry of Education), 2004-2006. (Secretary, 2002-2004, Board Member, 2006-2009).
- Coordinator of the Technology and Health Program 2004; C.A.M. Madrid June 2004.
- President of the Ministry Commission of Technology of Materials, May 1996 - May 1999.

### **Publications with more than 150 citations in Google Scholar and Scopus**

Artículo	Citations in Scholar	Citations in Scopus	F.I.
Mesoporous materials for drug delivery. M Vallet-Regí, F Balas, D Arcos. Angewandte Chemie International Edition 46 (40), 7548-7558 2007.	1932	1560	11.994
A new property of MCM-41: drug delivery system. M Vallet-Regi, A Ramila, RP Del Real, J Pérez-Pariente. Chemistry of Materials 13 (2), 308-311 2001	1651	1309	9.466
Metal-organic frameworks as efficient materials for drug delivery. P Horcajada, C Serre, M Vallet-Regí, M Sebban, F Taulelle, G Férey. Angewandte chemie 118 (36), 6120-6124 2006	1261	931	11.994
Flexible porous metal-organic frameworks for a controlled drug delivery. P. Horcajada, Ch. Serre, G. Maurin, N.A Ramsahye, F. Balas, M. Vallet-Regi, M. Sebban, F. Taulelle, G. Férey. Journal of the American Chemical Society 130 (21), 6774-6780 2008	989	864	13.858
Calcium phosphates as substitution of bone tissues. M Vallet-Regí, JM González-Calbet. Progress in solid state Chemistry 32 (1), 1-31 2004	905	622	4.087
MCM-41 organic modification as drug delivery rate regulator. B Munoz, A Ramila, J Perez-Pariente, I Diaz, M Vallet-Regi. Chemistry of Materials 15 (2), 500-503 2003	595	485	9.466
Influence of pore size of MCM-41 matrices on drug delivery rate. P Horcajada, A Ramila, J Perez-Pariente, M Vallet-Regi. Microporous and Mesoporous Materials 68 (1), 105-109 2004	518	407	3.615
Ordered mesoporous materials in the context of drug delivery systems and bone tissue engineering. M Vallet-Regí. Chemistry—A European Journal 12 (23), 5934-5943 2006	453	365	5.317
Ceramics for medical applications. M Vallet-Regí. Journal of the Chemical Society, Dalton Transactions, 97-108 2001	438	299	4.029
Mesoporous SBA-15 HPLC evaluation for controlled gentamicin drug delivery. AL Doadrio, EMB Sousa, JC Doadrio, J Pérez Pariente, I Izquierdo-Barba, M Vallet-Regi. Journal of	369	277	7.786

Controlled Release 97 (1), 125-132 2004			
Glasses with medical applications. M Vallet-Regí, C Ragel, AJ Salinas. European Journal of Inorganic Chemistry 2003 (6), 1029-1042 2003	<b>366</b>	<b>305</b>	<b>2.444</b>
Confinement and controlled release of bisphosphonates on ordered mesoporous silica-based materials. F Balas, M Manzano, P Horcajada, M Vallet-Regí. Journal of the American Chemical Society 128 (25), 8116-8117 2006	<b>362</b>	<b>306</b>	<b>13.858</b>
Sol-gel silica-based biomaterials and bone tissue regeneration. D Arcos, M Vallet-Regí. Acta Biomaterialia 6 (8), 2874-2888 2010	<b>344</b>	<b>274</b>	<b>6.319</b>
Studies on MCM-41 mesoporous silica for drug delivery: effect of particle morphology and amine functionalization. M Manzano, V Aina, CO Arean, F Balas, V Cauda, M Colilla, MR Delgado, M Vallet-Regí. Chemical Engineering Journal 137 (1), 30-37 2008	<b>316</b>	<b>248</b>	<b>6.216</b>
Revisiting silica based ordered mesoporous materials: medical applications. M Vallet-Regí, L Ruiz-González, I Izquierdo-Barba, JM González-Calbet. Journal of Materials Chemistry 16 (1), 26-31 2006	<b>286</b>	<b>219</b>	<b>6.626</b>
Functionalization of mesoporous materials with long alkyl chains as a strategy for controlling drug delivery pattern. J.C Doadrio, E.MB Sousa, I. Izquierdo, A.L Doadrio, J. Perez-Pariente, M. Vallet-Regí. Journal of Materials Chemistry 16 (5), 462-466 2006	<b>285</b>	<b>220</b>	<b>6.626</b>
A new method to produce macropores in calcium phosphate cements. RP Del Real, JGC Wolke, M Vallet-Regí, JA Jansen. Biomaterials 23 (17), 3673-3680 2002	<b>284</b>	<b>213</b>	<b>8.402</b>
Smart drug delivery through DNA/magnetic nanoparticle gates. E Ruiz-Hernandez, A Baeza, M Vallet-Regí. ACS nano 5 (2), 1259-1266 2011	<b>280</b>	<b>245</b>	<b>13.942</b>
Medical applications of organic-inorganic hybrid materials within the field of silica-based bioceramics. M Vallet-Regí, M Colilla, B González. Chemical Society Reviews 40 (2), 596-607 2011	<b>261</b>	<b>209</b>	<b>38.618</b>
Ordered mesoporous bioactive glasses for bone tissue regeneration. A López-Noriega, D Arcos, I Izquierdo-Barba, Y Sakamoto, O Terasaki, M Vallet-Regí. Chemistry of materials 18 (13), 3137-3144 2006	<b>237</b>	<b>208</b>	<b>9.466</b>
New developments in ordered mesoporous materials for drug delivery. M Manzano, M Vallet-Regí. Journal of Materials Chemistry 20 (27), 5593-5604 2010	<b>219</b>	<b>192</b>	<b>6.626</b>
Silicon substituted hydroxyapatites. A method to upgrade calcium phosphate based implants. M Vallet-Regí, D Arcos. Journal of Materials chemistry 15 (15), 1509-1516 2005	<b>217</b>	<b>162</b>	<b>6.626</b>
Release evaluation of drugs from ordered three-dimensional silica structures. I. Izquierdo-Barba, Á. Martínez, A.L Doadrio, J. Pérez-Pariente, M. Vallet-Regí. European Journal of Pharmaceutical Sciences 26 (5), 365-373 2005	<b>214</b>	<b>160</b>	<b>4.159</b>
In vitro biocompatibility assessment of poly ( $\epsilon$ -caprolactone) films using L929 mouse fibroblasts. MC Serrano, R Pagani, M Vallet-Regí, J Pena, A Ramila, I Izquierdo, MT Portolés. Biomaterials 25 (25), 5603-5611 2004	<b>212</b>	<b>168</b>	<b>8.402</b>
Bioceramics: from bone regeneration to cancer nanomedicine. M Vallet-Regí, E Ruiz-Hernández. Advanced Materials 23 (44), 5177-5218 2011	<b>209</b>	<b>174</b>	<b>19.791</b>
Controlled crystallization of calcium phosphate apatites. LM Rodriguez-Lorenzo, M Vallet-Regí. Chemistry of materials 12 (8), 2460-2465 2000	<b>207</b>	<b>150</b>	<b>9.466</b>
Hexagonal ordered mesoporous material as a matrix for the controlled release of amoxicillin. M Vallet-Regí, JC Doadrio, AL Doadrio, I Izquierdo-Barba, J Pérez-Pariente. Solid State Ionics 172 (1), 435-439 2004	<b>202</b>	<b>145</b>	<b>2.354</b>
Mesoporous MCM-41 as drug host system. A Rámila, B Munoz, J Pérez-Pariente, M Vallet-Regí. Journal of sol-gel science and technology 26 (1), 1199-1202 2003	<b>197</b>	<b>159</b>	<b>1.575</b>
Revisiting ceramics for medical applications. M Vallet-Regí. Dalton Transactions, 5211-5220 2006	<b>191</b>	<b>154</b>	<b>4.029</b>
In vitro bioactivity of silicon-substituted hydroxyapatites. F Balas, J Pérez-Pariente, M Vallet-Regí. Journal of Biomedical Materials Research Part A 66 (2), 364-375 2003	<b>171</b>	<b>141</b>	<b>3.189</b>
Bioactivity of a CaO-SiO <sub>2</sub> binary glasses system. A Martínez, I Izquierdo-Barba, M Vallet-Regí. Chemistry of Materials 12 (10), 3080-3088 2000	<b>170</b>	<b>166</b>	<b>9.466</b>
Magnetically triggered multidrug release by hybrid mesoporous silica nanoparticles. A Baeza, E Guisasaola, E Ruiz-Hernández, M Vallet-Regí. Chemistry of materials 24 (3), 517-524 2012	<b>164</b>	<b>161</b>	<b>9.466</b>
XRD, SEM-EDS, and FTIR studies of in vitro growth of an apatite-like layer on sol-gel glasses. M Vallet-Regí, AM Romero, CV Ragel, RZ LeGeros. Journal of Biomedical Materials Research Part A 44 (4), 416-421 1999	<b>160</b>	<b>142</b>	<b>3.189</b>
Tissue regeneration: a new property of mesoporous materials. I. Izquierdo-Barba, L. Ruiz-González, J. C Doadrio, J. M González-Calbet, M. Vallet-Regí. Solid state sciences 7 (8), 983-989 2005	<b>155</b>	<b>139</b>	<b>1.811</b>

The A <sub>2</sub> SnO <sub>3</sub> (A= Ca, Sr) perovskites. A Vegas, M Vallet-Regí, JM González-Calbet, MA Alario-Franco. <i>Acta Crystallographica Section B: Structural Science</i> 42 (2), 167-172	<b>161</b>	<b>138</b>	<b>2.032</b>
Mesoporous silica nanoparticles for the design of smart delivery nanodevices M Colilla, B González, M Vallet-Regí. <i>Biomaterials Science</i> 1 (2), 114-134	<b>153</b>	<b>129</b>	<b>4.210</b>
The influence of proteins on the dispersability and cell-biological activity of silver nanoparticles. S Kittler, C Greulich, JS Gebauer, J Diendorf, L Treuel, L Ruiz, JM Gonzalez-Calbet, M Vallet-Regí, R Zellner, M Köller, M Epple. <i>Journal of Materials Chemistry</i> 20 (3), 512-518	<b>153</b>	<b>115</b>	<b>6.626</b>
Static and dynamic in vitro study of a sol-gel glass bioactivity. A Rámila, M Vallet-Regí. <i>Biomaterials</i> 22 (16), 2301-2306	<b>151</b>	<b>105</b>	<b>8.402</b>
Aerosol-assisted synthesis of magnetic mesoporous silica spheres for drug targeting. E Ruiz-Hernández, A Lopez-Noriega, D Arcos, I Izquierdo-Barba, Osamu Terasaki, M Vallet-Regí. <i>Chemistry of Materials</i> 19 (14), 3455-3463	<b>150</b>	<b>137</b>	<b>9.466</b>

## **Seleccction of publications of the last 7 years**

M.R. Villegas, A. Baeza, A. Nouredine, P. Durfee, K. Butler, J. Agola, J.C. Brinker, M. Vallet Regí. MULTIFUNCTIONAL PROTOCELLS FOR ENHANCED PENETRATION IN 3D EXTRACELLULAR TUMORAL MATRICES. *Chem. Mater.* 30, 112-120 (2018). F.I.: **9.466**

A.Y. Rwei, J.L. Paris, B. Wang, W. Wang, C.D. Axon, M. Vallet-Regí, R. Langer, D.S. Kohane. ULTRASOUND TRIGGERED LOCAL ANAESTHESIA. *Nat. Biomed. Eng.* 1 (8), 644–653 (2017)

J.L. Paris, P. de la Torre, M.V. Cabañas, M. Manzano, M. Grau, A.I. Flores, M. Vallet-Regí. VECTORIZATION OF ULTRASOUND-RESPONSIVE NANOPARTICLES IN PLACENTAL MESENCHYMAL STEM CELLS FOR CANCER THERAPY. *Nanoscale*, 9, 5528–5537 (2017). F.I.: **7.367**

G. Villaverde, V. Nairi, A. Baeza, M. Vallet-Regí. DOUBLE SEQUENTIAL ENCRYPTED TARGETING SEQUENCE: A NEW CONCEPT FOR BONE CANCER TREATMENT. *Chem. Eur. J.* 23,7174–7179 (2017). F.I.: **5.317**

R Cortés-Gil, L. Ruiz-González, D. González-Merchante, J.M. Alonso, A. Hernando, S. Trasobares, M. Vallet-Regí, J.M. Rojo and J. M. González-Calbet. EXPERIMENTAL EVIDENCE OF THE ORIGIN OF PHASE SEPARATION IN LOW HOLE-DOPED COLOSSAL MAGNETORESISTANT MANGANITES. *Nano Letters*. 16, 760–765 (2016). F.I.: **12.712**

J.L. Paris, M. Cabañas, M. Manzano, M. Vallet-Regí. POLYMER-GRAFTED MESOPOROUS SILICA NANOPARTICLES AS ULTRASOUND-RESPONSIVE DRUG CARRIERS. *ACS Nano*. 9 (11) 11023-11033 (2015). F.I.: **13.492**

M.R. Villegas, A.Baeza, M. Vallet Regí. HYBRID COLLAGENASE NANOCAPSULES FOR ENHANCED NANOCARRIER PENETRATION IN TUMORAL TISSUES. *ACS Appl. Mater. Inter.* 7, 24075-24081 (2015). F.I.: **7.504**

N. Mas, D. Arcos, E. Aznar, S. Sánchez, F. Sancenón, A. García, M. D. Marcos, A. Baeza, M. Vallet-Regí, and R. Martínez. TOWARDS THE DEVELOPMENT OF SMART 3D “GATED SCAFFOLDS” FOR ON-COMMAND DELIVERY. *Small*. 10 (23), 4859-4864 (2014). F.I.: **8.643**

A. Baeza, E. Guisasola, A. Torres-Pardo, J.M. González-Calbet, G.J. Melen, M. Ramirez, M. Vallet-Regí. HYBRID ENZYME-POLYMERIC CAPSULES/MESOPOROUS SILICA NANODEVICE FOR IN SITU CYTOTOXIC AGENT GENERATION. *Adv. Funct. Mater.* 24 (29), 4625-4633 (2014). F.I.: **12.124**

D. Arcos, A.R. Boccaccini, M. Bohner, A. Díez-Pérez, M. Epple, E. Gómez-Barrena, A. Herrera, J.A. Planell, L. Rodríguez-Mañas, M. Vallet-Regí. THE RELEVANCE OF BIOMATERIALS TO THE PREVENTION AND TREATMENT OF OSTEOPOROSIS. *Acta Biomaterialia*. 1793–1805 (2014). F.I.: **6.319**

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