

JOSE ANTONIO GAVIRA GALLARDO

Grupo de Investigación: **CRECIMIENTO DE CRISTALES Y CRISTALIZACION INDUSTRIAL** (Cod.: RNM143)

Departamento: Instituto Andaluz de Ciencias de la Tierra (CSIC-IACT). Laboratorio de Estudios Cristalográficos

Código ORCID: <http://orcid.org/0000-0002-7386-6484>

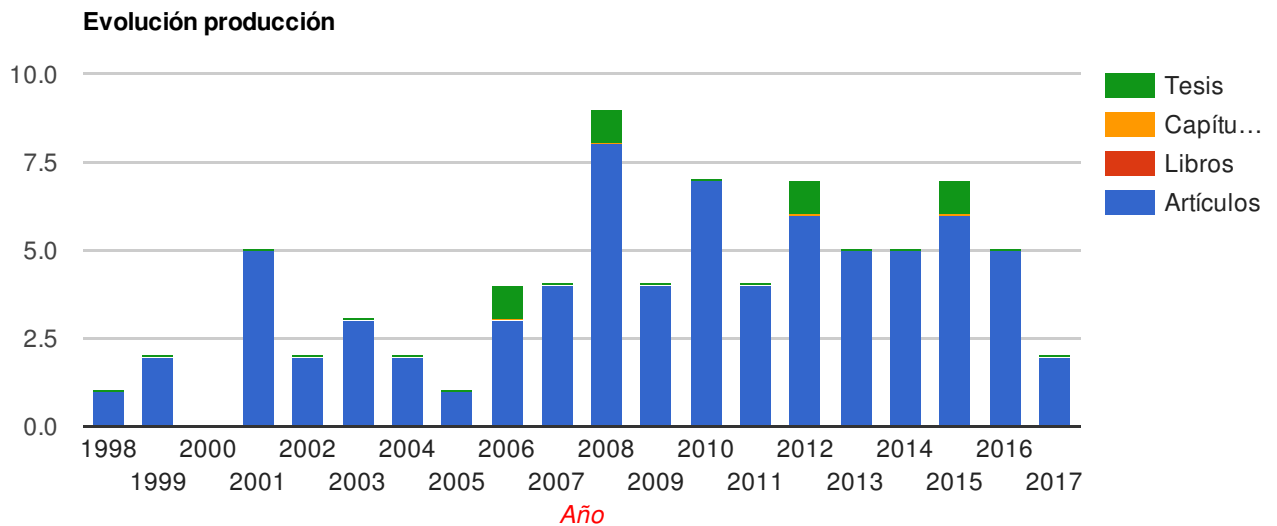
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Ficha del Directorio

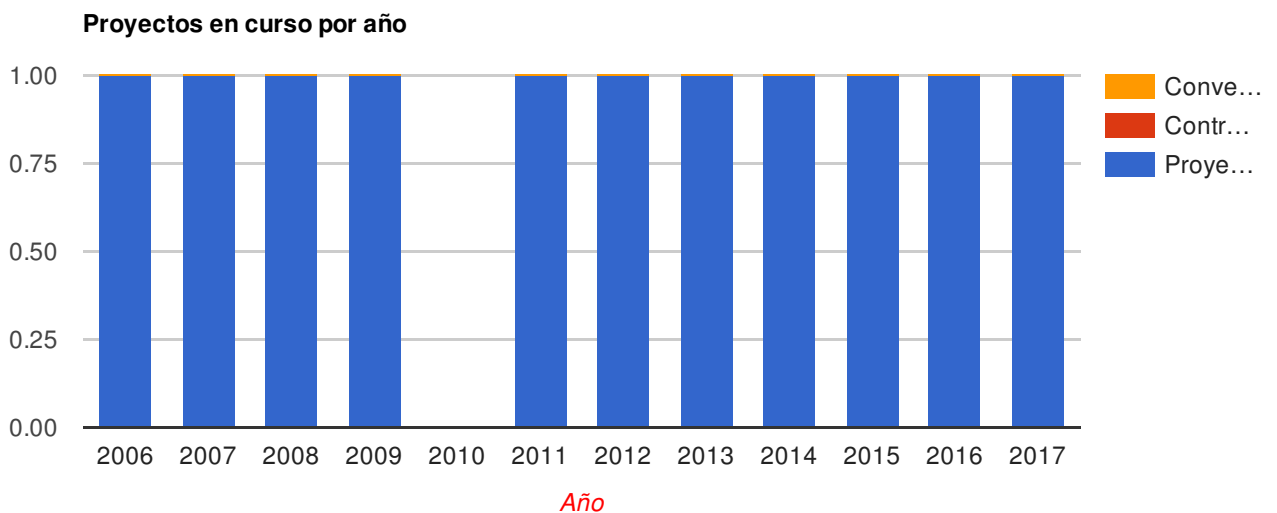
Producción 79

Artículos (75) Libros (0) Capítulos de Libros (0) Tesis dirigidas (4)



Proyectos dirigidos 3

Proyectos (3) Contratos (0) Convenios (0)



Actividades 6

Titulo publicación	Fuente	Tipo	Fecha
De novo active sites for resurrected precambrian enzymes	Nature communications	Articulo	2017
Enhanced vulnerability of human proteins towards disease-associated inactivation through divergent evolution	Human molecular genetics	Articulo	2017
Bioinspired calcium phosphate coated mica sheets by vapor diffusion and its effects on lysozyme assembly and crystallization	Crystal growth and design	Articulo	2016
Continuous sensing photonic lab-on-a-chip platform based on cross-linked enzyme crystals	Analytical chemistry	Articulo	2016
Current trends in protein crystallization	Archives of biochemistry and biophysics	Articulo	2016
Identification and characterization of a bacterial hyaluronidase and its production in recombinant form	Febs letters	Articulo	2016
Optimization of the classical method for nucleation and growth of rhombohedral insulin crystals by ph titration and screening	Bulgarian chemical communications	Articulo	2016
A multiple path photonic lab on a chip for parallel protein concentration measurements	Lab on a chip	Articulo	2015
Biotechnological applications of cross-linked enzyme crystals.	Instituto andaluz de ciencias de la tierra (csic-iact). laboratorio de estudios cristalográficos	Tesis doctoral	2015
Evolution of conformational dynamics determines the conversion of a promiscuous generalist into a specialist enzyme	Molecular biology and evolution	Articulo	2015
Influence of the chirality of short peptide supramolecular hydrogels in protein crystallogenesis	Chemical communications	Articulo	2015
Mcclec, a robust and stable enzymatic based microreactor platform	Lab on a chip	Articulo	2015
Mutational studies on resurrected ancestral proteins	Molecular biology and evolution	Articulo	2015
Protein crystallization in short-peptide supramolecular hydrogels: a versatile strategy towards biotechnological composite materials	Crystengcomm	Articulo	2015
Cloning, expression, purification, crystallization and preliminary x-ray characterization of allantoinase from bacillus licheniformis atcc 14580	Acta crystallographica. section f: structural biology communications	Articulo	2014
Introduction to protein crystallization		Articulo	2014
Phenotypic comparisons of consensus variants versus laboratory resurrections of precambrian proteins	Proteins: structure, function, and bioinformatics	Articulo	2014
Thermostable and promiscuous precambrian proteins	Environmental microbiology	Articulo	2014
Use of cross-linked poly(ethylene glycol)-based hydrogels for protein crystallization	Crystal growth and design	Articulo	2014
Conservation of protein structure over four billion years	Structure	Articulo	2013
Growth of ultrastable protein-silica composite crystals	Crystal growth and design	Articulo	2013
Heterogeneous crystallization of proteins: is it a prenucleation clusters mediated process?	Crystal growth & design	Articulo	2013
Hyperstability and substrate promiscuity in laboratory resurrections of precambrian b-lactamases	Journal of the american chemical society	Articulo	2013
Purification, crystallization and preliminary crystallographic analysis of the ligand-binding regions of the pcta and pctb chemoreceptors from pseudomonas aeruginosa in complex with amino acids	Acta crystallographica. section f: structural biology communications	Articulo	2013
Crystallization and crystallographic analysis of the ligand binding domain of the p. putida chemoreceptor mcps in complex with malate and succinate	Acta crystallographica. section f: structural biology communications	Articulo	2012

Materials and Substrate	Communications		
Evidence for chemoreceptors with bimodular ligand binding region harboring two signal-binding sites	Proceedings of the national academy of sciences of the united states of america	Articulo	2012
In situ x-ray data collection from highly sensitive crystals of pseudomonas putida ptxs in complex with dna	Acta crystallographica. section f: structural biology communications	Articulo	2012
Monitoring and scoring counter-diffusion protein crystallization experiments in capillaries by in situ dynamic light scattering	Plos one	Articulo	2012
Mutational and structural analysis of l-n-carbamoylase reveals new insights into a peptidase m20/m25/m40 family member	Journal of bacteriology	Articulo	2012
Protein experiment: scientific data processing platform for on-flight experiment tuning	Microgravity science and technology	Articulo	2012
Proteínas ancestrales: reconstrucción y caracterización energética, funcional y estructural.		Tesis doctoral	2012
Combining counter-diffusion and microseeding to increase the success rate in protein crystallization	Crystal growth and design	Articulo	2011
Hetero- vs homogeneous nucleation of protein crystals discriminated by supersaturation	Crystal growth and design	Articulo	2011
Optimization of protein crystallization: the opticryst project	Crystal growth and design	Articulo	2011
Understanding the polymorphic behaviour of a mutant of the alpha-spectrin sh3 domain by means of two 1.1 a resolution structures	Acta crystallographica. section d, biological crystallography	Articulo	2011
Atomic resolution studies of haloalkane dehalogenases dhaa04, dhaa14 and dhaa15 with engineered access tunnels	Acta crystallographica. section d, biological crystallography	Articulo	2010
Biophysical and atomic force microscopy characterization of the rna from satellite tobacco mosaic virus	Nucleic acids research	Articulo	2010
Modulation of buried ionizable groups in proteins with engineered surface charge	Journal of physics and chemistry of solids	Articulo	2010
Novel conformational aspects of the third pdz domain of the neuronal post-synaptic density-95 protein revealed from two 1.4a x-ray structures.	Journal of structural biology	Articulo	2010
Structure of dihydropyrimidinase from sinorhizobium meliloti cect4114: new features in an amidohydrolase family member	Journal of structural biology	Articulo	2010
Toward the crystallization of photosystem ii core complex from pismus sativum l.¿	Crystal growth and design	Articulo	2010
Two-step counterdiffusion protocol for the crystallization of haemoglobin ii from lucina pectinata in the ph range 4-9	Acta crystallographica. section f: structural biology communications	Articulo	2010
Counterdiffusion methods applied to protein crystallization	Progress in biophysics and molecular biology	Articulo	2009
Crystallization and diffraction patterns of the oxy and cyano forms of the lucina pectinata haemoglobins complex	Acta crystallographica. section f: structural biology communications	Articulo	2009
Effects of a magnetic field on lysozyme crystal nucleation and growth in a diffusive environment	Crystal growth and design	Articulo	2009
Precise protein solubility determination by laser confocal differential interference contrast microscopy	Journal of crystal growth	Articulo	2009
Comparison of different experimental techniques for the measurement of crystal growth kinetics	Crystal growth and design	Articulo	2008
Crystallization and preliminary crystallographic studies of an active-site mutant hydantoin racemase from sinorhizobium meliloti cect4114	Acta crystallographica. section f: structural biology communications	Articulo	2008
Crystallization and preliminary crystallographic studies of the	Acta crystallographica. section		

Crystallization and preliminary crystallographic studies of the recombinant l-n-carbamoylase from geobacillus stearothermophilus cect43	Acta crystallographica. section f: structural biology communications	Articulo	2008
Force-clamp spectroscopy detects residue co-evolution in enzyme catalysis	Journal of biological chemistry	Articulo	2008
Granada crystallization facility-2: a versatile platform for crystallization in space	Crystal growth and design	Articulo	2008
In situ observation of protein crystal growth by advanced optical techniques	Universidad de granada - c.s.i.c. laboratorio de estudios cristalográficos	Tesis doctoral	2008
Is agarose an impurity or an impurity filter? in situ observation of the joint gel/impurity effect on protein crystal growth kinetics	Crystal growth and design	Articulo	2008
Structure and ligand selection of hemoglobin ii from lucina pectinata	Journal of biological chemistry	Articulo	2008
Toward a definition of x-ray crystal quality	Crystal growth and design	Articulo	2008
Crystallization and structure-functional study of photosystem ii from higher plant	Materials structure in chemistry, biology, physics and technology	Articulo	2007
Crystallization by capillary counter-diffusion and structure determination of the n114a mutant of the sh3 domain of abl tyrosine kinase complexed with a high-affinity peptide ligand	Acta crystallographica. section d, biological crystallography	Articulo	2007
Direct and noninvasive observation of two-dimensional nucleation behavior of protein crystals by advanced optical microscopy	Crystal growth and design	Articulo	2007
Structure of the mexicain-e-64 complex and comparison with other cysteine proteases of the papain family	Acta crystallographica. section d, biological crystallography	Articulo	2007
Capillary crystallization and molecular-replacement solution of haemoglobin ii from the clam lucina pectinata	Acta crystallographica. section f: structural biology communications	Articulo	2006
Crystallization and preliminary crystallographic studies of the recombinant dihydropyrimidinase from sinorhizobium meliloti cect4114	Acta crystallographica. section f: structural biology communications	Articulo	2006
New techniques for membrane protein crystallization tested on photosystem ii core complex of pisum sativum	Photosynthesis research	Articulo	2006
Relación entre estabilidad, estructura y evolución de proteínas: estudios mutacionales, termodinámicos, cinéticos y cristalográficos	Universidad de granada. química física	Tesis doctoral	2006
Binding curves by continuous gradient flow-mix calorimetry	Thermochemica acta	Articulo	2005
Photosystem ii core complex of pisum sativum. crystallization trials	Materials structure in chemistry, biology, physics and technology	Articulo	2004
Purification, crystallization and preliminary x-ray analysis of mexicain	Acta crystallographica. section d, biological crystallography	Articulo	2004
Protein crystal quality in diffusive environments and its evaluation	Journal of crystal growth	Articulo	2003
Protein crystallization by capillary counterdiffusion for applied crystallographic structure determination	Journal of structural biology	Articulo	2003
Purification, crystallization and preliminary x-ray analysis of caenorhabditis elegans ubiquitin-conjugation enzyme m7.1	Acta crystallographica. section d, biological crystallography	Articulo	2003
Ab initio crystallographic structure determination of insulin from protein to electron density without crystal handling	Acta crystallographica. section d, biological crystallography	Articulo	2002
Granada crystallisation box: a new device for protein crystallisation by counter-diffusion techniques	Acta crystallographica. section d, biological crystallography	Articulo	2002
A supersaturation wave of protein crystallization	Journal of crystal growth	Articulo	2001
Agarose as crystallization media for proteins i: transport			2001

processes	Journal of crystal growth	Articulo	2001
Crystallization and cryocrystallography inside x-ray capillaries	Journal of applied crystallography	Articulo	2001
Experimental evidence for the stability of the depletion zone around a growing protein crystal under microgravity	Acta crystallographica. section d, biological crystallography	Articulo	2001
Structure of tetragonal hen egg-white lysozyme at 0.94 angstrom from crystals grown by the counter-diffusion method	Acta crystallographica. section d, biological crystallography	Articulo	2001
In-situ measurement of rocking curves during lysozyme crystal growth	Acta crystallographica. section d, biological crystallography	Articulo	1999
Topography and high resolution diffraction studies in tetragonal lysozyme	Journal of crystal growth	Articulo	1999
Reinforced protein crystals	Materials research bulletin	Articulo	1998

	Título proyecto	Tipo	Inicio	Fin
1	Comprensión de los quimiorreceptores con una región de unión a ligando bimodular	Proyecto	1/1/14	6/30/17
2	Producción y caracterización de cristales de proteínas reforzados y entrecruzados con aplicaciones biotecnológicas	Proyecto	1/1/11	12/31/13
3	Optimisation of protein crystallisation for european structural genomics (opticryst)	Proyecto	12/1/06	11/30/09

Actividades 6

Título actividad	Fuente	Tipo	Fecha
Participación en: biophysical society of the american institute of physics (faseb (federation of american societies for experimental biology))	Faseb (federation of american societies for experimental biology)	Comité científico en sociedad ci	Jan 1, 2001
Participación en: grupo español de cristalografía (gec) (rsqe)	Rsqe	Comité científico en sociedad ci	Jan 1, 1998
Participación en: american crystallographic association (iucr)	lucr	Comité científico en sociedad ci	Jan 1, 2001
Participación en: international union of crystallography (international council for science (icsu))	International council for science (icsu)	Comité científico en sociedad ci	Jan 1, 2000
Participación en: european crystallography association (iucr)	lucr	Comité científico en sociedad ci	Jan 1, 2000
Participación en: real sociedad española de física y química ()		Comité científico en sociedad ci	Jan 1, 1998

Colaboradores

- JUAN MANUEL GARCIA RUIZ (37)
- FERMÍN OTÁLORA MUÑOZ (17)
- JOSE MANUEL SANCHEZ RUIZ (11)
- LUIS ANTONIO GONZALEZ RAMIREZ (9)
- ESTELA PINEDA MOLINA (8)
- SERGIO MARTINEZ RODRIGUEZ (8)
- Valeria Alejandra Risso Dirazar (6)
- M^a TERESA CONEJERO MURIEL (5)
- BEATRIZ IBARRA MOLERO (4)
- JOSE CRISTOBAL MARTINEZ HERRERIAS (4)
- FRANCISCO JAVIER LOPEZ JARAMILLO (3)
- ISAAC RODRÍGUEZ RUIZ (3)
- ALFONSO GARCIA CABALLERO (2)
- ALVARO INGLES PRIETO (2)
- ANGEL LUIS PEY RODRÍGUEZ (2)
- ASUNCIÓN DELGADO DELGADO (2)
- CRISTOBAL VERDUGO ESCAMILLA (2)
- DAVID RODRIGUEZ LARREA (2)
- RAUL PEREZ JIMENEZ (2)
- ANTONIO PARODY MORREALE (1)
- ENCARNACIÓN MEDINA CARMONA (1)

- EVA SANCHEZ COBOS (1)
- FADIA MANSSOUR TRIEDO (1)
- FRANCISCO CONEJERO LARA (1)
- FRANCISCO SANTOYO GONZALEZ (1)
- IRENE LUQUE FERNÁNDEZ (1)
- JAIME GÓMEZ MORALES (1)
- JAVIER MURCIANO CALLES (1)
- JUAN DE DIOS GARCÍA LÓPEZ-DURÁN (1)
- JUAN JOSÉ DÍAZ MOCHÓN (1)
- JUAN MANUEL CUERVA CARVAJAL (1)
- LUIS ALVAREZ DE CIENFUEGOS RODRIGUEZ (1)
- MARIANO ORTEGA MUÑOZ (1)
- MIGUEL BURGOS POYATOS (1)
- NOEL MESA TORRES (1)
- OBDULIO LÓPEZ MAYORGA (1)
- RAQUEL GODOY RUIZ (1)
- ROCIO ARCO GONZALEZ (1)
- ROGELIO JESÚS PALOMINO MORALES (1)
- Rafael Contreras Montoya (1)
- SALVADOR CASARES ATIENZA (1)