



CURRICULUM VITAE (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

CV date 04/01/2022

First name	José Antonio		
Family name	Grande Gil		
Gender (*)	Masculine	Birth date (07/03/1955)	
Social Security, Passport, ID number	██████████		
e-mail	grangil@uhu.es		
Open Researcher and Contributor ID (ORCID) (*)	0000-0002-0007-5227		

(*) Mandatory

A.1. Current position

Position	Full Professor		
Initial date	21-01-2011		
Institution	University of Huelva		
Department/Center	Department of Mining, Mechanic, Energetic and Construction Engineering		
Country	Spain	Teleph. number	
Key words	Mining waste; Sustainable Mining; Modelling polluting processes; Acid Mine Drainage; Restoration		

A.2. Previous positions (research activity interruptions, art. 14.2.b)

Period	Position/Institution/Country/Interruption cause
2006-2010	Full Professor of University School- University of Huelva, Spain (no interruptions)
1980-2006	Other positions University of Huelva, Spain (no interruptions)

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Engineer (Graduate) Mining	University of Sevilla	1978
Licensed in Geology	Faculty of de Experimental Sciences University of Sevilla	1988
Doctor in Geology	Faculty of de Experimental Sciences University of Sevilla	1992

Part B. CV SUMMARY (max. 5000 characters, including spaces)

José Antonio Grande Gil is Graduated in Mining Engineering and in Geology. Has a Master in Risk Prevention and a Doctorate in Geology. His university's experience exceeds 38 years of uninterrupted service, always in Mining Prospecting and Research, affiliate to the Department of Mining, Mechanic, Energetic and Construction Engineering from the Higher Technical School of Engineering of the University of Huelva (Spain). He is currently Full Professor. He gave invited lectures on four continents. He has directed a total of 80 Final Degree Projects to Mining Engineering students, 29 master's thesis and 10 doctoral theses, all of them with "cum laude" mention extraordinary doctorate award.



He has been responsible for different Research Groups since the date of his doctorate lecture until today.

The research activity focuses on the characterization of the interaction between Mining and Environment, the application of statistical and fuzzy logic tools to the modeling of polluting processes and the proposal of preventive and corrective measures. Acid mine drainage is the main line of research. Scientific Production: more than 300 works published in different forums: 114 articles in INDEXED SCIENTIFIC PUBLICATIONS WITH RELATIVE QUALITY INDEX, more than half as the first signatory, another 4 accepted (pending publication). Based on these indexed works, he has an "h index" of 27 (Scopus) an "h index" 32 in Google Scholar. The rest correspond to articles in non-indexed journals and conference presentations. Author of 4 books and co-author of more than thirty. He is the owner of an international patent for acid mine water treatment. Member of the Editorial Board of 4 international journals and referee of hundreds of articles. Evaluator of projects of the Spanish Ministry (ANEP) and of different countries in Latin America. He belongs to the Permanent External Committee for Scientific Advice (CEPAC/CIG-R Portuguese) and is member as Jury of the Spanish Research Awards and Member of the ANECA Panel of Experts for Full Professors on the Engineering and Architecture Branch. He has participated in more than 68 research projects and/or contracts, all on mining issues, 29 obtained in competitive calls, 11 of them financed by the European Union and the rest by companies and different national organizations and associations, almost all as Principal Investigator and related to Mining Environment. Creator of a Technology-Based Company (Spin Off). He has worked as a consultant in mining projects of great economic and social significance such as: Proyecto de Escombrera de la Mina Aguablanca (Río Narcea Gold Mine), Proyecto y EIA de Escombreras en Minas de Tharsis, (CIA de Minas de Tharsis), Proyecto de Balance Global y Ciclo del Agua en la Mina de Ríotinto (Emed Mining), etc.

Part C. RELEVANT MERITS

C.1. Publications

1. **Grande J.A.**, Luís A.T., Córdoba F., Leiva M., Dávila J.M., Fortes J.C., Santisteban M., Ferreira da Silva E., Sarmiento A.M. 2021. Odiel River (SW Spain), a Singular Scenario Affected by Acid Mine Drainage (AMD): Graphical and Statistical Models to Assess Diatoms and Water Hydrogeochemistry Interactions. *Int. J. Environ. Res. Public Health*. 18:8454.
2. Dávila J.M., Sarmiento A.M., Aroba J., Fortes J.C., **Grande J.A.**, Santisteban M., Córdoba F., Leiva M., Luís A.T. 2021. Application of a Fuzzy Logic Based Methodology to Validate the Hydrochemical Characterization and Determining Seasonal Influence of a Watershed Affected by Acid Mine Drainage. *Int J Environ Res Public Health*. 18(9), 4693.
3. Chacon-Baca E., Santos A., Sarmiento A.M., Luís A.T., Santisteban M., Fortes J.C., Dávila J.M., Curiel J., **Grande J.A.** 2021. Acid Mine Drainage as energizing microbial niches for the formation of clastic iron stromatolites: The Tintillo river in SW Spain. *Astrobiology*. 21(4):1-21.
4. Fortes J.C., Dávila J.M., Sarmiento A.M., Luís A.T., Santisteban, M., Díaz Curiel J., Córdoba, F., **Grande J.A.** 2020. Corrosion of metallic and structural elements exposed to Acid Mine Drainage effects: A review. *Mine Water and the Environment*.
5. Rivera M.J., Santisteban M., Aroba J., **Grande J.A.**, Dávila J.M., Sarmiento A.M., Fortes J.C., Diaz-Curiel J., Luís, A.T. 2020 Application of Fuzzy Logic Techniques for Biogeochemical Characterization of Dams Affected by Acid Mine Drainage (AMD) Processes in the Iberian Pyrite Belt (IPB), Spain. *Water Air and Soil Pollution* 231:142.
6. Rivera M.J., Luís, A.T., **Grande J.A.**, Sarmiento A.M., Dávila J.M., Fortes J.C., Córdoba, F., Diaz-Curiel J., Santisteban M. 2019. Physico-Chemical Influence of Surface Water Contaminated by Acid Mine Drainage on the Populations of Diatoms in Dams (Iberian Pyrite Belt, SW Spain). *International Journal of Environmental Research and Public Health*, 16, 4516.
7. Davila J.M., Sarmiento A.M., Santisteban M., Luís A.T., Fortes J.C., Diaz-Curiel J., Valbuena C., **Grande J.A.** 2019. The Unesco National Biosphere Reserve (Marismas



- del Odiel, SW Spain). An area of 18,875 hectares affected by Mining Waste. *Environmental Science and Pollution Research*. 26(32):33594-33606.
8. **Grande J.A.**, Loayza-Muro R., Alonso-Chaves F.M., Fortes J.C., Willems B., Sarmiento A.M., Santisteban M., Davila J.M., de la Torre M.L., Durães N., Alonso-Chaves F.M., Luís A.T. 2019. The Negro River (Ancash-Peru): A unique case of water pollution, three environmental scenarios and an unresolved issue. *Science of the Total Environment*. 648:398-407.
 9. Sarmiento A.M., **Grande J.A.**, Luís, A.T., Dávila J.M., Fortes J.C., Santisteban M., Curiel J., de la Torre M.L., Ferreira da Silva, E. 2018. Negative pH values in an open-air radical environment affected by acid mine drainage. Characterization and proposal of a hydrogeochemical model. *Science of the Total Environment*. 644: 1244-1253.
 10. Luís A.T., **Grande J.A.**, Davila J.M., Aroba J., Durães N., Almeida S.F.P., de la Torre M.L., Sarmiento A.M., Fortes J.C., Ferreira da Silva E., Santisteban M. 2018. Application of fuzzy logic tools for the biogeochemical characterisation of (un)contaminated waters from Aljustrel mining area (South Portugal), *Chemosphere*. 211:736-744.

C.2. Congress and Books

Congress works: 86; Books as Author or Editor: 4; Book Chapters: 18

C.3. Research projects

- 2021 **ERA-MIN** Joint Call: Project: Mine tailings Reprocessing, Revalorization and Risk reduction connecting innovations in metal recovery, geopolymerization, ceramics & sealing layers; Acrónimo TailingR³2Green. **Granted on: 17-12-2021**; I.P. Manuel Caraballo; Jose Antonio Grande Coordinator Researcher; Total granted for UHU: 408.592€.

- **HORIZON-CL4-2021-TWIN-TRANSITION-01** Type of action: HORIZON-IA Proposal acronym: ROTATE Duration (months): 48 Proposal title: CIRCULAR ECOLOGICAL ESSENTIAL & CRITICAL RAW MATERIALS Activity: HORIZON-CL4-2021 TWIN-TRANSITION-01-20. Total granted for UPM: 684.000€ for UPM-Madrid. José Antonio Grande is included in the UPM team (with UHU authorization). **Granted on 14-12-2021**

-Título del proyecto: ETUDE DU FRACTIONNEMENT ISOTOPIQUE DU CUIVRE DANS LA ZONE MINIERE DU RIO TINTO (ANDALOUSIE, ESPAGNE) (EFIMIN). Entidad financiadora: Initiative Structurante EC2CO. Ecosphere Continentale et Cotiere. CNRS-INSU Entidades participantes: CNRS-INSU (Universite Paul Sabatier) France.

-Título del proyecto: CUANTIFICACIÓN DE LA CARGA METÁLICA Y SULFATOS APORTADA POR PROCESOS AMD A EMBALSES DE LA FAJA PIRÍTICA IBÉRICA : MODELIZACIÓN DEL PROCESO Y VELOCIDADES DE COLMATACIÓN (CGL2010-21268-C02-01)
Entidad financiadora: Ministerio de Educación y Ciencia.
Investigador responsable: Dr. D. José Antonio Grande Gil

-Título del proyecto: CUANTIFICACIÓN DE LA CARGA METÁLICA Y SULFATOS APORTADA POR PROCESOS AMD A EMBALSES DE LA FAJA PIRÍTICA IBÉRICA.
Entidad financiadora: Junta de Andalucía. Proyectos de Excelencia.
Investigador responsable: Dr. D. José Antonio Grande Gil

-Título del proyecto: INVESTIGACIÓN Y TRANSFERENCIA TRANSFRONTERIZA ESPAÑA-PORTUGAL. SUBPROYECTO INVENTARIO DE EXPLOTACIONES MINERAS EN LA FAJA PIRÍTICA IBÉRICA HISPANO-PORTUGUESA. CARACTERIZACIÓN PRELIMINAR DE EFLUENTES (INVEMIN).
Entidad financiadora: UNIÓN EUROPEA (FEDER)-PROGRAMA OPERATIVO DE COOPERACIÓN TRANSFRONTERIZO ESPAÑA/Portugal (POCTEP).



-Título del proyecto: BALANCE GLOBAL Y ANALISIS DE RUTAS DE ARSÉNICO Y CADMIO EN AGUAS, EN EL ENTORNO AFECTADO POR DRENAJE ÁCIDO DE MINA EN LA FAJA PIRÍTICA IBÉRICA. P06-RNM-02167

Entidad financiadora: JUNTA DE ANDALUCIA. PROYECTOS DE EXCELENCIA.

-Título del proyecto: ANÁLISIS DEL IMPACTO AMBIENTAL DE LA RÍA DE HUELVA SOBRE EL AGUA, LA MATERIA EN SUSPENSIÓN (MS) Y EL SEDIMENTO DE LA COSTA ADYACENTE (S.O. de la Península Ibérica). CTM2006-08298/MAR

Entidad financiadora: CICYT

C.4. Contracts, technological or transfer merits

From 60 contracts, highlights the followings:

-Título del contrato/proyecto: ASISTENCIA TÉCNICA PARA LA REAPERTURA DE LA MINA RIOTINTO (HUELVA)

Empresa/Administración financiadora: EMED MINING

-Título del contrato/proyecto: Proyecto de concesión de aguas subterráneas para uso industrial en El Repilado (Huelva).

Investigador responsable: Dr. José Antonio Grande Gil

-Título del contrato/proyecto: Informe sobre afección del medio hídrico por el emplazamiento de una escombrera en la explotación minera Aguablanca (Monestario, Badajoz).

Empresa/Administración : Rio Narcea Gold Mining

Patentes: Sistema para la neutralización de aguas ácidas de mina y recuperación de su carga metálica.

Inventores: **José Antonio Grande Gil** y José Manuel Andújar Márquez

Nº de registro Patente: P201030851