CV date	01/12/2021

Part A. PERSONAL INFORMATION

First name	Francisco Javier		
Family name	González Sanz		
Gender (*)	Male	Birth date (dd/mm/yyyy)	03/12/1974
Social Security, Passport, ID number			03468166L
e-mail	fj.gonzalez@igme.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)		http://orcid.org/0000-0002-6311-1950	

(*) Mandatory

A.1. Current position

Position	Senior researcher (Investigador Científico OPIS)		
Initial date	15/02/2021		
Institution	Geological Survey of Spain/ Instituto Geológico y Minero de España (IGME-CSIC)		
Department/Center	Marine Geology		
Country	Spain	Teleph. number	+34913495864
Key words	Mineralogy, Ore deposits, Marine mineral deposits, Geochemistry, Ferromanganese nodules and crusts, critical elements, Biomineralization		

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

Period	Position/Institution/Country/Interruption cause
2009-2021	Researcher/ IGME/ Spain/ Career promotion
2004-2008	Pre-doctoral contract/ IGME-UCM/ Spain/ Doctoral degree

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD Geology	Complutense University of Madrid (UCM)	2008
MSc Geology (Ore deposits)	University of Salamanca (USAL)	1999

Part B. CV SUMMARY

Six-yearly research (sexenios): 2; five-yearly research (quinquenios): 3
Last granted period (2013-2018)
Scientific papers (SCI): 50
Books published: 8;
International book chapters: 18
Metallogenic maps and marine cartographies: 19
h-Index: 18 (SCOPUS); 20 (Google Scholar)
Total Q1 papers: 28
Research projects coordination: 4 (1 H2020; 1 Atracción talent; 1 Plan Estatal I+D+I; 1 Plan Transformación, Recuperación y Resiliencia)
WPs coordination in research projects: 9 (6 European; 3 Plan Estatal I+D+I)
Research projects participation: 25
PhD Thesis supervisions: 2; MSc Thesis supervisions: 7

Link to MyCitations (Google Scholar).https://scholar.google.es/citations?user=EyjkVc4AAAAJ&hl=es (1285 citations)

He got his MSc in Geology (Ore Deposits), University of Salamanca (1999) and PhD in Geology (Mineralogy and Geochemistry of Marine Ferromanganese Deposits), Complutense University of Madrid (2008).
Dr. Javier González is currently leading the research group "Applied Geology to Marine Resources and in Extreme Environments" at the Geological Survey of Spain (IGME-CSIC), a national center attached to the Spanish National Research Council. He is the coordinator of the Horizon 2020 MINDeSEA, the flagship project of GeoERA on seabed mineral deposits in the European seas. He is Collaborator at the Department of Mineralogy and Petrology of the "Complutense University of Madrid" (UCM), contributing to the formation of PhD and Master Students. His research activities are concerned with mineralogy, petrology, geochemistry and metallogenesis, especially on deep sea mineralization such as methane-derived carbonates, Fe-Mn nodules, Co-rich crusts and polymetallic sulphides related to cold seeps, seamounts and hydrothermal systems. He has mainly worked on the Iberian continental margins, Canary Islands, Mid-Atlantic Ridge, South China Sea, Cocos-Nazca Ridge and South Shetland Islands and Scotia Sea (Antarctica), where he has been involved in several national and international research projects related to marine mineral deposits since 2004. He is an expertise on ferromanganese deposits along the continental slope of the Gulf of Cadiz and the Canary Archipelago.

He has participated in 19 oceanographic cruises in Antarctica, Canary Island, Mid-Atlantic Ridge, Azores Islands, Gulf of Cádiz, Galician and Bay of Biscay area, Mediterranean Sea and Lake Baikal. From 2008, he has coordinated the seabed sampling operations and research works on petrography, mineralogy, geochemistry and metallogenesis of different expeditions like those related with the extension of the Continental Shelf of Spain according UNCLOS and others on seamounts, cold-seeps and hydrothermal-magmatic systems (MVSEIS08, DRAGO0511, SUBVENT1, SUBVENT2, EXPLOSEA1, EXPLOSEA2). He has participated in international cooperative projects funded by Science Agencies of China, Iran, Russia, Brazil, UK, Greece, Norway and USA to study mineral deposits. Ad hoc advisor to various science support agencies and referee of international journals. He is member of the Editorial Board of the Springer Brief Series on World Mineral Deposits and Minerals MDPI journal. Presently he has 50 papers published in SCI referred journals, books, book chapters, scientific reports, metallogenetic maps and marine cartographies. He is Guess Editor of the Special Issue "Marine Geology and Minerals" of the Minerals journal. He has participated in International Conferences with more than 120 scientific presentations, and several communications in Media and Social Media.

Part C. RELEVANT MERITS

C.1. Publications

González, F.J., Rincón-Tomás, B., Somoza, L., Santofimia, E., Medialdea, T., Madureira, P., López-Pamo, E., Hein, J.R., Marino, E., de Ignacio, C., Reyes, J., Hoppert, M., Reitner. J. (2020). Low-temperature, shallow-water hydrothermal vent mineralization following the recent submarine eruption of Tagoro volcano (El Hierro, Canary Islands). ***Marine Geology*** 430, 106333. Q1 GEOSCIENCES

Somoza, L., Medialdea, T., **González, F.J.**, Calado, A. et al. (2020). Multidisciplinary Scientific Cruise to the Northern Mid-Atlantic Ridge and Azores Archipelago. ***Frontiers in Marine Science*** 7: 568035. Q1 OCEANOGRAPHY

Marino, E., **González, F.J.**, Kuhn, T., Madureira, P., Wegorzewski, A. V., Mirao, J.,... & Somoza, L. (2019). Hydrogenetic, Diagenetic and Hydrothermal Processes Forming Ferromanganese Crusts in the Canary Island Seamounts and Their Influence in the Metal Recovery Rate with Hydrometallurgical Methods. ***Minerals*** 9(7). Q2 MINERALOGY

Rincón-Tomás, B., Duda, J. P., Somoza, L., **González, F.J.**, Schneider, D., Medialdea, T.,... & Reitner, J. (2019). Cold-water corals and hydrocarbon-rich seepage in Pompeia Province (Gulf of Cádiz)–living on the edge. ***Biogeosciences*** 16(7), 1607-1627. Q1 EARTH-SURFACE PROCESSES

Somoza, L., **González, F.J.**, Barker, S.J., Madureira, P.; Medialdea, T., de Ignacio, C., Lourenço, N., León, R., Vázquez, J.T., Palomino, D. (2017). Evolution of submarine eruptive activity during the 2011-2012 El Hierro event as documented by hydroacoustic images and remotely operated vehicle observations. ***Geochemistry, Geophysics, Geosystems*** 18 (8): 3109-3137. Q1 GEOCHEMISTRY AND GEOPHYSICS

Medialdea, T., Somoza, L., **González, F.J.**, Vázquez, J. T., de Ignacio, C., Sumino, H.,... & Palomino, D. (2017). Evidence of a modern deep water magmatic hydrothermal system in the Canary Basin (eastern central Atlantic Ocean). ***Geochemistry, Geophysics, Geosystems*** 18 (8), 3138-3164. Q1 GEOCHEMISTRY AND GEOPHYSICS

Marino, E., **González, F.J.**, Somoza, L., Lunar, R., Ortega, L., Vázquez, J.T., Reyes, J., Bellido, E. (2017). Strategic and rare elements in Cretaceous-Cenozoic cobalt-rich ferromanganese crusts from seamounts in the Canary Island Seamount Province (northeastern tropical Atlantic). ***Ore Geology Reviews*** 87, 41-61. Q1 GEOSCIENCES

Zhong, Y., Chen, Z., **González, F.J.**, Hein, J.R., Zheng, X., Li, G. Luo,Y., Mo, A., Tian, Y., Wang, S. (2017). Composition and genesis of ferromanganese deposits from the northern South China Sea. ***Journal of Asian Earth Sciences*** 138, 110-128. Q1 GEOSCIENCES

González, F.J., Somoza, L., Hein, J. R., Medialdea, T., León, R., Urgorri, V., Reyes, J., Martín- Rubí, J. A. (2016). Phosphorites, Co-rich Mn nodules, and Fe-Mn crusts from Galicia Bank, NE Atlantic: Reflections of Cenozoic tectonics and paleoceanography. ***Geochemistry, Geophysics, Geosystems*** 17-2, 346-374. Q1 GEOCHEMISTRY AND GEOPHYSICS

González, F.J., Somoza, L., León, R., Medialdea, T., Torres, T., Ortiz, J.E., Lunar, R., Martínez-Frías, J. Merinero, R. (2012) Ferromanganese nodules and micro-hardgrounds associated with the Cadiz Contourite Channel (NE Atlantic): palaeoenvironmental records of fluid venting and bottom currents. ***Chemical Geology*** 310-311, 56-78. Q1 GEOCHEMISTRY AND GEOPHYSICS

C.2. Congresses

Event: **"Minería en aguas profundas: perspectivas para el desarrollo de la actividad en México"**
Title: **Potencial mineralógico de los fondos marinos profundos**
Organizer: *Secretaría de Medioambiente y Recursos Naturales- Gob. México (SEMARNAT)*
Type: Invited talk (F.J. González)
Place/ date: Online / 18 November 2021

Event: "***Critical Minerals Forum"***
Title: **Mapping and studying the European critical elements in submarine and on-land mineral deposits for the sustainable future**
Organizer: American Geosciences Institute (AGI)
Type: Invited talk (F.J. González and D. de Oliveira)
Place/ date: Online / 19 February 2021
Website: https://www.americangeosciences.org/webinars/critical-minerals-forum-2021

Event: **"Goldschmidt 2019"**
Title: **Critical raw materials based on marine minerals: new frontiers and challenges**
Type: Session conveners F.J. González, Pierre Josso, Irene Zananiri
Place/ date: Barcelona / August 2019

Event: **"La Noche de los Volcanes"**
Title: **Exploring the secrets of the Canary Islands' underwater volcanoes**

Type: Invited talk (F.J. González)
Organizer: *European Volcanoes´s Night, INVOLCAN, Gob. Canarias*
Place/ date: Fuencaliente-La Palma / 30 September 2016

C.3. Research projects

Seabed Mineral Deposits in European Seas: Metallogeny and Geological Potential for Strategic and Critical Raw Materials MINDeSEA (grant agreement No 731166 GeoE.171.001)
Agency: European Commission (H2020 ERANET)
From: 2018 until: 2021 Budget: 783.000 euro
European Coordinator: Francisco Javier González/ Instituto Geológico y Minero de España
Participation: European project coordinator and WP Leader

Forecasting and Assessing Europe's Strategic Raw Materials needs FRAME (grant agreement No 731166)
Agency: European Commission (H2020 ERANET)
From: 2018 until: 2021 Budget: 1.200.000 euro
European Coordinator: Daniel Oliveira/ LNEG-Portugal
Participation: Researcher

European Marine Observation and Data NETwork-geology EMODNET-Geology Phase 2 (2012/S 96 - 158476) and Phase 3 (EASME/EMFF/2016/1.3.1.2-Lot 1/S12.750862).
Agency: European Commission (Calls 2013 and 2016)
From: 2014 until: 2019 Budget: 350.000 euro
Principal Investigator: Teresa Medialdea / Instituto Geológico y Minero de España
Participation: Researcher

Exploración de emisiones submarinas de fluidos hidrotermales, mineralizaciones y geobio-sistemas asociados-EXPLOSEA (CTM2016-75947-R)
Agency: Plan Nacional de I+D+i (Call 2016)
From: 2017 until: 2020 Budget: 194.000 euro
Principal Investigator: Luis Somoza; Teresa Medialdea/ Instituto Geológico y Minero de España
Participation: WP Leader

Emisiones submarinas de fluidos en los márgenes continentales de las Islas Canarias y del Golfo de Cádiz: procesos geológicos y depósitos minerales asociados-SUBVENT (CGL2012-39524-C02-02)
Agency: Plan Nacional de I+D+i (Call 2012)
From: 2013 until: 2016 Budget: 100.000 euro
Principal Investigator: Luis Somoza / Instituto Geológico y Minero de España
Participation: WP Leader

C.4. Contracts, technological or transfer merits

Memoradum of understanding for Research cooperation between NOC (UK) and IGME
Type: Research cooperative agreement in marine Geology and submarine mineral deposits.
Proponents: Bramley Murton (NOC), Francisco Javier González (IGME)
Organisations: Instituto Geológico y Minero de España (IGME) – NOC
Starting date: 2016

Cooperation agreement between the Biomolecular Stratigraphy Laboratory (ETSIME-UPM) and IGME
Type: Research cooperative agreement in sediment biomarkers.
Proponents: Trinidad de Torres (UPM), Francisco Javier González (IGME)
Organisations: Instituto Geológico y Minero de España (IGME) – ETS Ing. Minas y Energía Madrid
Starting date: 2016