

Magnetic property of the quasicrystal $\text{Al}_{62.2}\text{Cu}_{25.3}\text{Fe}_{12.5}$ in the formation of nanostructured materials applied in the Petrochemical industry

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Quasicrystals are materials with good physical, thermodynamic, electronic, surface and magnetic properties, due to this, it has a wide industrial applicability. However, we always attract attention many researchers in technology innovation in the development of nano-structured materials. Mainly advantages that the quasicrystalline alloys propitiates in the catalytic reactions. The magnetic behavior of the quasicrystalline $\text{Al}_{62.2}\text{Cu}_{25.3}\text{Fe}_{12.5}$ and the conduction electrons are essentially the location of the eminence of the unpaired electronic spins that are present in the quasicrystalline alloy; (Mn, Fe) and rare earth metal atoms are studies explored in magnetism. The magnetic properties of the Al-Cu-Fe alloy, which is stable in the icosahedral phase, show a linear relationship between magnetic susceptibility and electron state density at the Fermi (FE) energy level, including temperature dependence, and the Pauli energy in the paramagnetic. For this purpose, it makes the techniques of

Physical-chemical characterization, such as: Diffraction (XRD) and Scanning Electron Microscopy (SEM), Energy Dispersive Spectroscopy (EDS), Paramagnetic Resonance Spectroscopy (EPR), Vibrant Sample Magnetometer (MAV) and others.

Speaker Biography

Lourdes Cristina Lucena Agostinho Jamshidi is a Doctoral in Chemical Engineering, Masters of Mechanical Engineering-emphasis in Materials Science. She completed her Bachelors degree in Physics-Solid state, Industrial Chemistry and Chemistry. She is a specialist in the teaching of Mathematics by IMPA/UFPB and did her specialization course in chemistry EDX/MITX from the Massachusetts Institute of Technology and 22 courses of Human Resources in Oil and Natural Gas Program (PRH-28), National Petroleum Agency-Natural Gas (ANP) PETROBRAS (Brazil). She has more than 60 publications on international and national journals (Environment, Education and Technology of Petroleum). She is also the reviewer of International Journal of Elsevier and other National scientific journals and contributed herself by participating in International Congresses of Omics on Petrochemicals and Chemical Engineering and also the part of the organizing committee of the World Conference and Expo on Petrochemicals and Natural Resources in the year 2018 at Prague. She is the author of two Books with ISBN and has an International Patent in Catalyst Area.

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