

***Dr. Alejandro Cruz Ramírez***

Professor at the National Polytechnic Institute

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Mexico

Email: [alcruzt@ipn.mx](mailto:alcruzt@ipn.mx)



Dr. Alejandro Cruz Ramírez is a Professor at the National Polytechnic Institute (IPN), Mexico, where he has taught since 2005. He holds a Metallurgical Engineering degree, a Master of Science in Metallurgy, and a PhD in Metallurgy and Materials, all obtained from IPN.

His teaching portfolio includes courses in pyrometallurgy, metal casting, and thermodynamics. His research spans the recycling of metallurgical waste, the production and characterization of metal foams and sponges, and the development of austempered ductile iron.

Dr. Cruz Ramírez has authored approximately 90 peer-reviewed publications indexed in the Journal Citation Reports and is the inventor of six patents registered with the Mexican Institute of Intellectual Property. He has supervised around 60 undergraduate and graduate theses, contributing extensively to the training of young engineers.

Since 2007, he has been a member of Mexico's National System of Researchers, recognizing his sustained academic contributions to science and engineering.