Iva Bogdanović Radović received her PhD in nuclear physics from the University of Zagreb in 1997. For more than 30 years, she has been working at the Ruđer Bošković Institute (IRB) in Zagreb, Croatia, on the development and application of ion beam based nuclear analytical techniques for the analysis and modification of materials. In the last 10 years, an important part of her research has focused on the application of ion beam analysis (IBA) techniques for the study of materials important for fusion research, especially materials that are candidates for plasma-facing components and their characterization before and after plasma exposure in linear and toroidal fusion devices. She has published more than 200 scientific papers related to IBA techniques and participated in many international scientific meetings and summer schools with more than 20 invited talks. She was the Chair or member of the organizing or program committees of several international conferences, including the Chair of the local organizing committee of the 31st and 32nd Symposium on Fusion Technology (SOFT2020 and SOFT2022).

Since 2019, she has been Chair of the International Advisory Board of the IBA Conferences. In 2023, she became editor of the journal Nuclear Instruments and Methods B.