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	KI 3.1	M 3.1.1

3.1.1	The institution’s Research facilities are frequently updated and there are well defined policy for promotion of research which is uploaded on the institutional website and implemented
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Figure 1: online resource search home page- INFED


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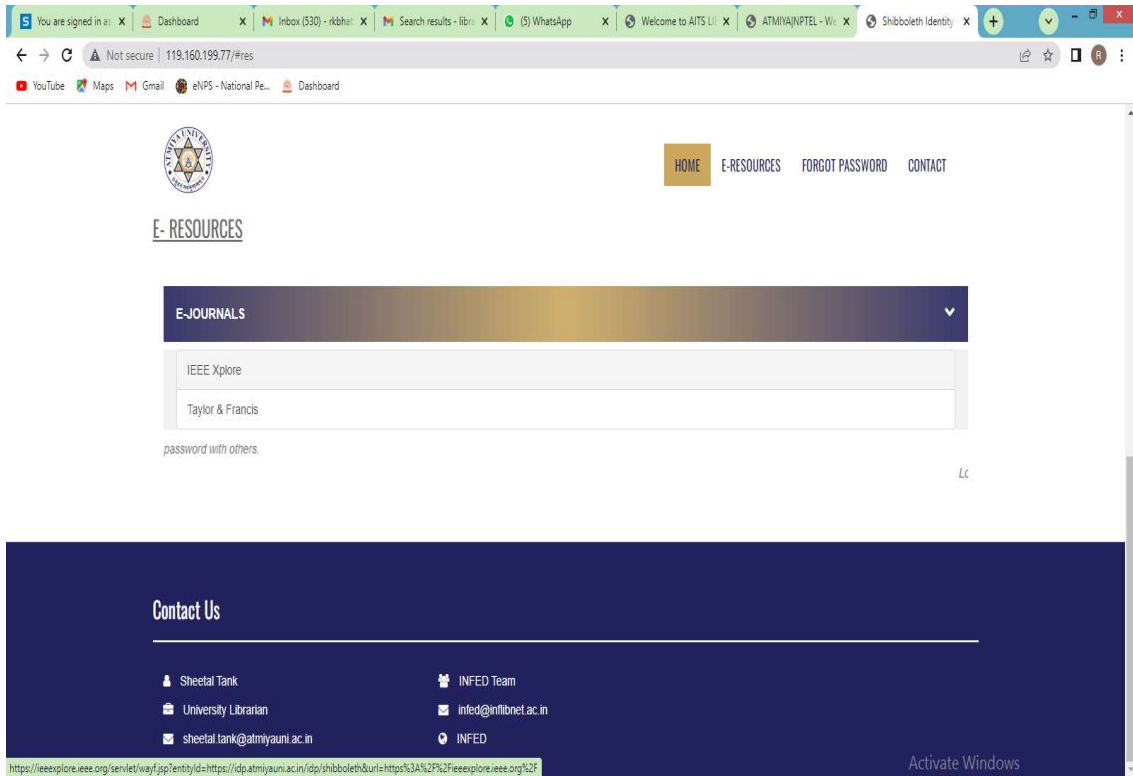


Figure 2: E- resource search page- INFED

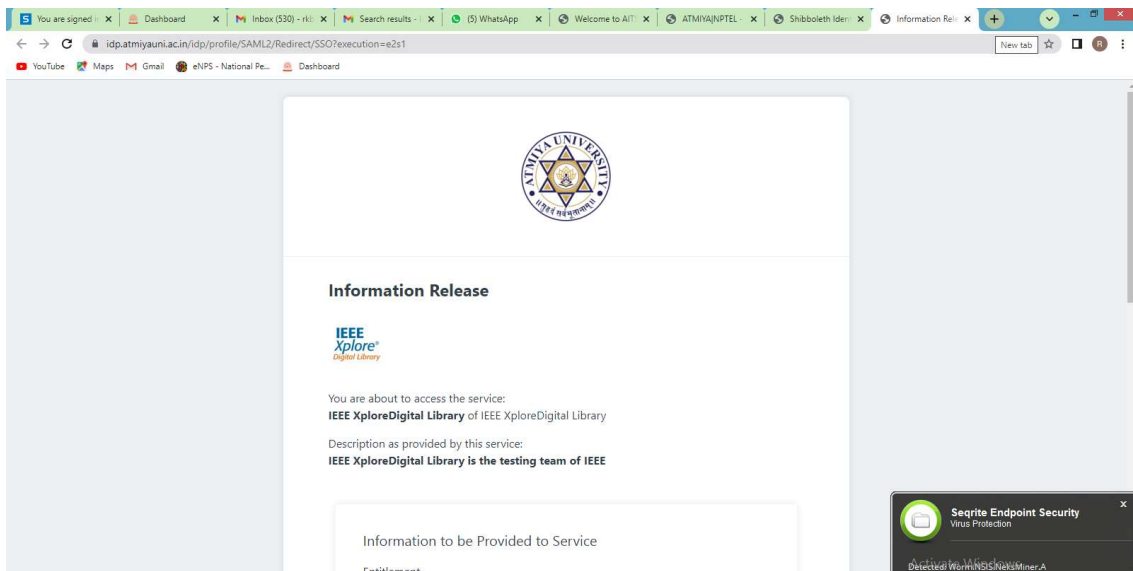


Figure 3: E- Journals IEEE search page- INFED


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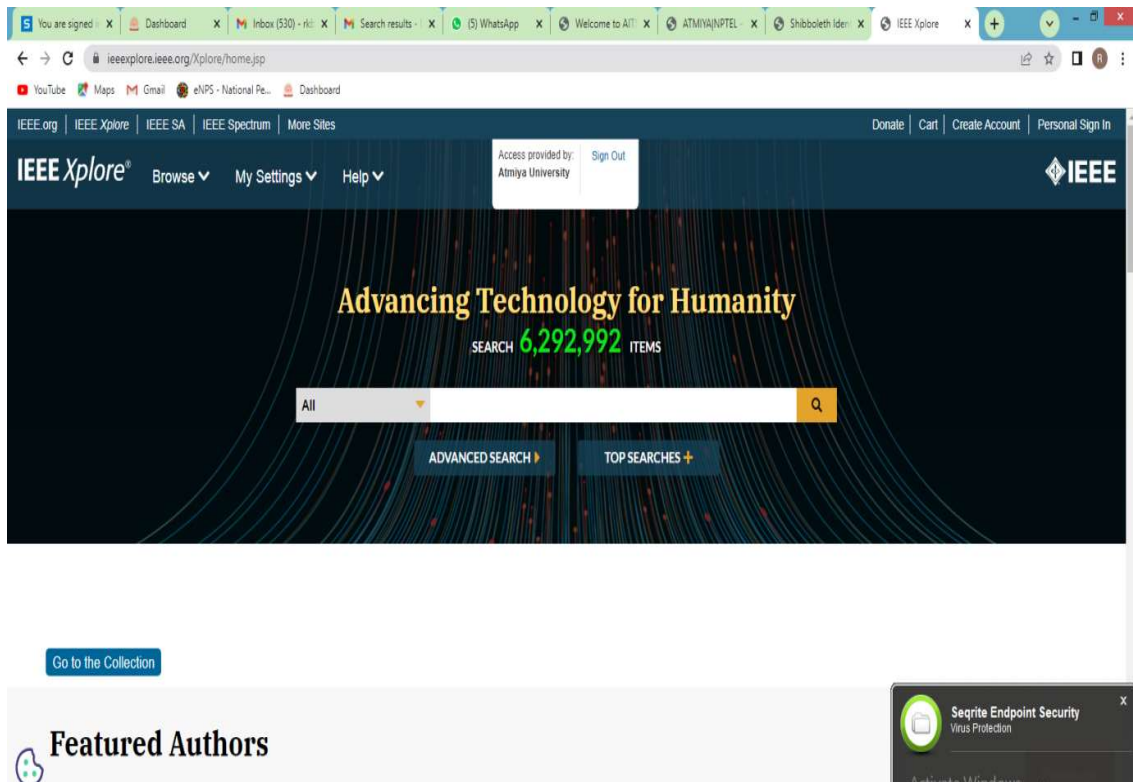
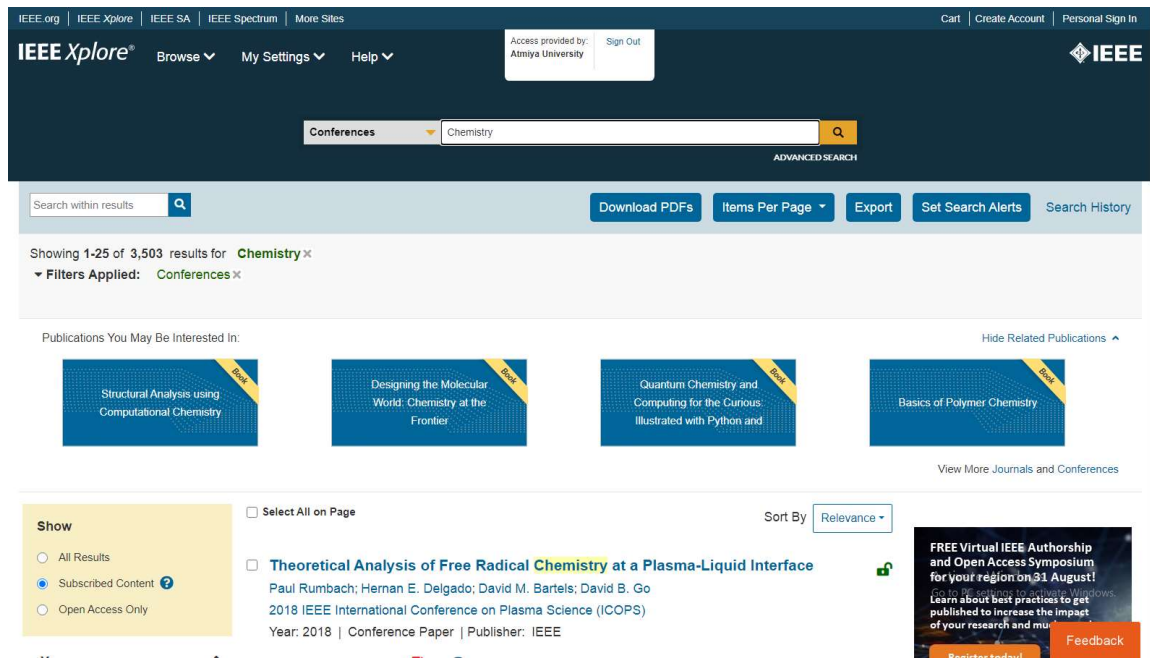


Figure 4: IEEE Home page- INFED


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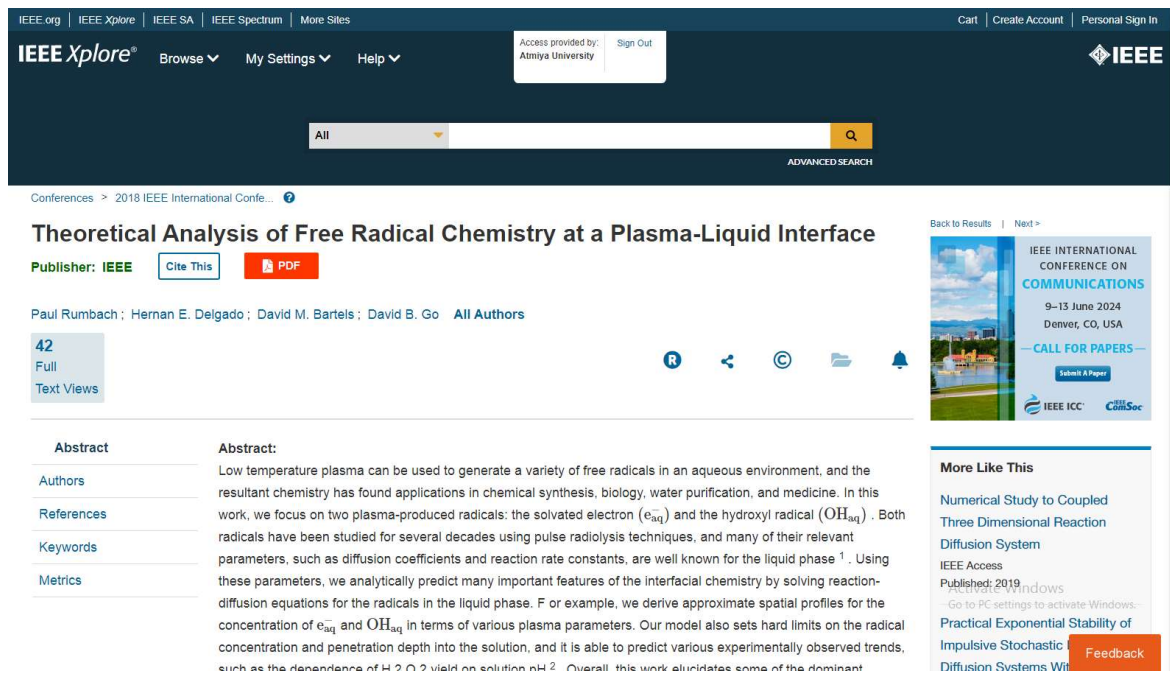
Paul Rumbach; Hernan E. Delgado; David M. Bartels; David B. Go

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Theoretical Analysis of Free Radical Chemistry at a Plasma-Liquid Interface

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Abstract

Abstract: Low temperature plasma can be used to generate a variety of free radicals in an aqueous environment, and the resultant chemistry has found applications in chemical synthesis, biology, water purification, and medicine. In this work, we focus on two plasma-produced radicals: the solvated electron (e_{aq}^-) and the hydroxyl radical (OH_{aq}^\cdot). Both radicals have been studied for several decades using pulse radiolysis techniques, and many of their relevant parameters, such as diffusion coefficients and reaction rate constants, are well known for the liquid phase¹. Using these parameters, we analytically predict many important features of the interfacial chemistry by solving reaction-diffusion equations for the radicals in the liquid phase. For example, we derive approximate spatial profiles for the concentration of e_{aq}^- and OH_{aq}^\cdot in terms of various plasma parameters. Our model also sets hard limits on the radical concentration and penetration depth into the solution, and it is able to predict various experimentally observed trends, such as the dependence of H_2O_2 yield on solution pH². Overall, this work elucidates some of the dominant

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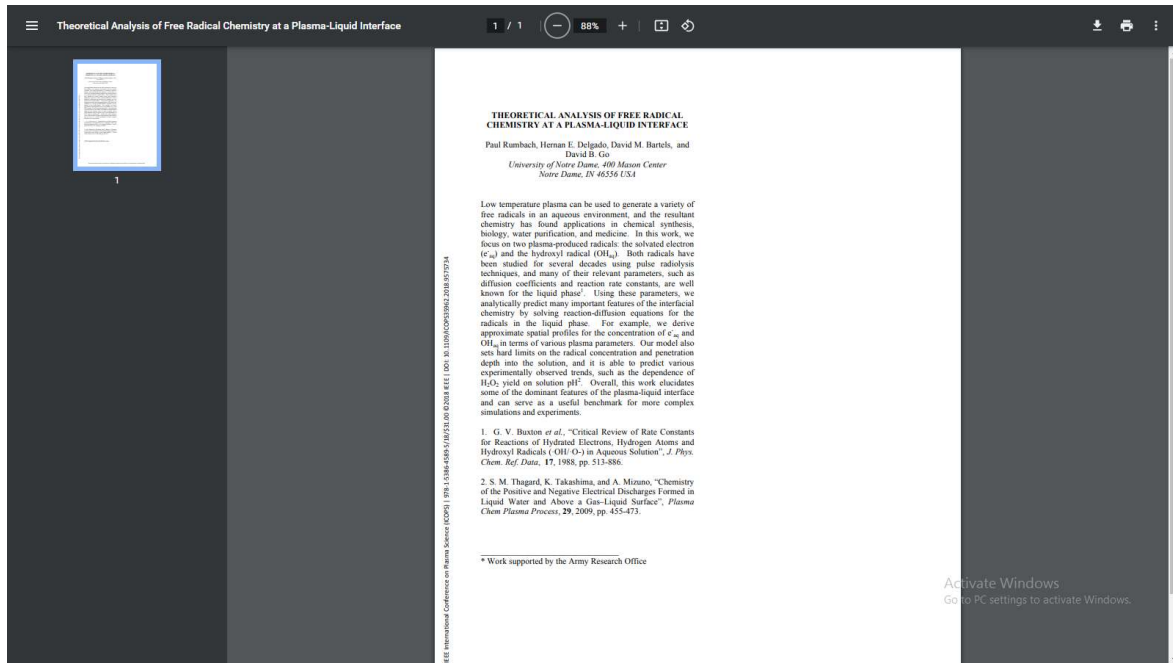


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