



Recent Advances in the Synthesis of Fluoroelastomers and Applications Therefrom

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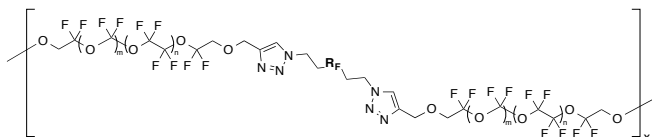
主催：九州大学先導物質化学研究所

共催：九州大学高分子機能創造リサーチコア

Ameduri 先生は、先導物質化学研究所の客員教授として来所なさっており、フッ素系高分子の合成分野において世界的に著名な研究者です。皆様の多数のご参加をお待ちしております。

Abstract: Searching new elastomers endowed with low glass transition temperatures (T_g s) is still a challenge, especially for aerospace and automotive industries. This presentation proposes various synthetic strategies to lead to new generations of fluorinated amorphous copolymers:

- From iodine transfer copolymerization of VDF with PMVE;
- from the use of oligo(perfluoropolyether)s (PFPEs) that even lower T_g values (< -60 °C). Hence, the radical copolymerization of VDF with an oligo(HFPO) macromonomer led to higher thermostable elastomeric materials with T_g ranging from -74 to -55 °C.
- A more recent route involving PFPE and central oligo(tetrafluoroethylene) or, better, oligo(VDF-co-HFP) copolymer led to stable materials with T_g as low as -100 °C.



Brief Resume: After earning a MSc at Quebec, Canada and internship at IBM, San Jose, California, Dr. Ameduri received Ph.D. in Polymer Chemistry at University of Montpellier in 1988. That same year, he got a Junior Researcher CNRS position and then was promoted Senior Researcher in 2000. He has published 3 books, 45 reviews or book chapters and more than 300 articles; was also invited in more than 100 International conferences and in various Universities (especially Kyushu in Takahara Soft Interfaces' Lab). Presently, he is assigned to visiting professor of IMCE. His research interest encompasses the synthesis of fluorinated monomers, telomers, and (co)polymers by free radical or RDR Polymerizations and their applications in elastomers, fuel cell membranes, ferroelectrics, polymer gel electrolytes for LIBs, or surfactants.