

Water-borne poly(meth)acrylates obtained from functional and renewable monomers

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Water-borne Poly(meth)acrylates Obtained From Functional and Renewable Monomers

By Jules Stouten

- 1. Modern civilization is built on tens of thousands of years of scientific innovations and discoveries. From the first geniuses that learned how to use fire and stone tools, to modern day scientists experimenting in the laboratory.
- 2. Old organic chemistry might one day suddenly find its application in polymer chemistry.
- 3. Always keep an eye open for unexpected results during experimentation.
- 4. Introducing new molecular structures to polymer chemistry could inspire other scientists to use them in a way you would not think of in the first place.
- 5. A good learning experience it is to explore different fields in science. However, it takes mastering the subject to bring true innovation.
- 6. The process of making a colloid can be complex, be careful with assuming anything. Some but not all factors that are involved in such assembly and dispersion processes are concentration, temperature, time, shear, viscosity, presence of salt, soaps or impurities, structure and dimensions of involved amphiphilic molecules, and the nature of the biphasic system.
- 7. It is not straightforward to use functional monomers in conventional harsh polymerization conditions considering the potential for side reactions to occur.
- 8. Considering the polymerization synthesis mixture as a final product is an efficient way of working, but it leaves less room for concessions during synthesis.
- 9. The transition from hazardous and increasingly more expensive solvent-borne coatings to water-borne alternatives continues to this day, thus the development of novel polymers also is desired to fulfill this requirement.