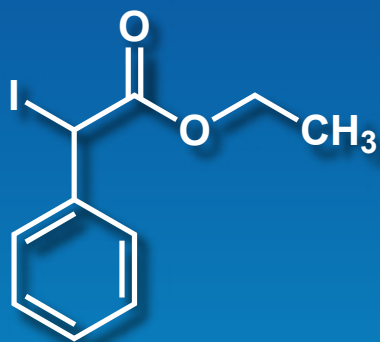
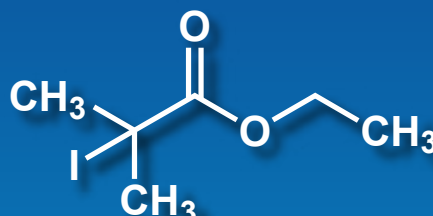


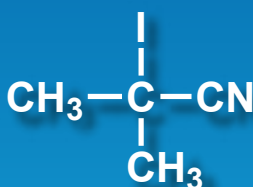
Alkyl Iodide Initiators for Organocatalyzed Living Radical Polymerization



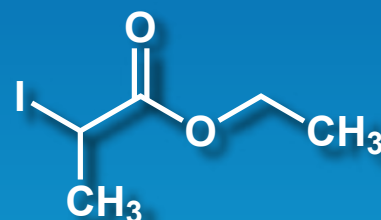
Ethyl 2-iodo-2-phenylacetate
5g / 25g
[E1200]



Ethyl 2-iodo-2-methylpropionate
5g / 25g
[E1199]



2-iodo-2-methylpropionitrile
1g / 5g
[I0954]



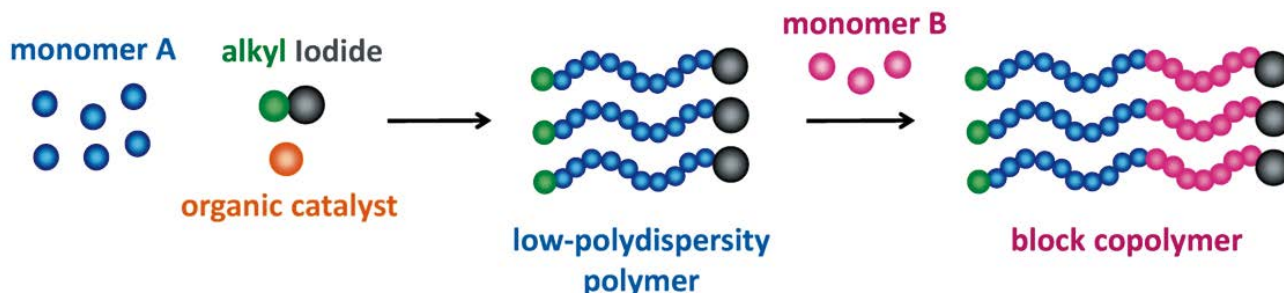
Ethyl 2-iodopropionate
5g / 25g
[E1198]

Advantages

- Allow controlled/living radical polymerization in the presence of a catalyst.
- Obtained polymers have low polydispersity.
- Metal-free polymerization can be performed.

General Scheme of Organocatalyzed Living Radical Polymerization¹⁻⁵⁾

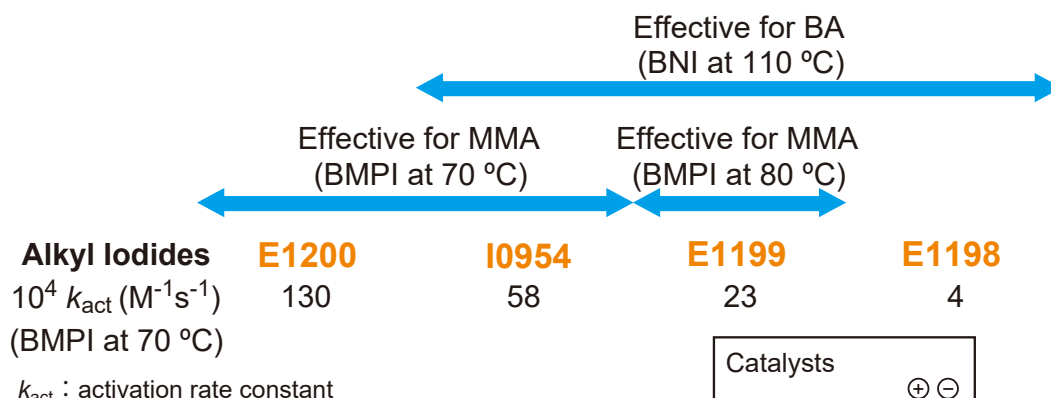
Organocatalyzed Living Radical Polymerization



Goto *et al.* have reported that alkyl iodides are efficient initiators for organocatalyzed living radical polymerization which is a new family of living radical polymerization. Organic amines and organic salts are used as catalysts.¹⁻⁵⁾

Alkyl Iodide Initiators for Organocatalyzed Living Radical Polymerization

Ranges of Effective Alkyl Iodides in the Polymerizations of Methyl Methacrylate (MMA) and Butyl Acrylate (BA)¹⁻³⁾



These alkyl iodides are effective initiators in methyl methacrylate (MMA) and butyl acrylate (BA) polymerizations using tributylmethylphosphonium iodide (BMPI) or tetrabutylammonium iodide (BNI) as a catalyst. Low-polydispersity polymers are obtainable.¹⁻³⁾

References

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- 3) A. Goto, PCT Int. Appl. WO 2015122404, **2015**.
- 4) A. Goto, A. Ohtsuki, H. Ohfuji, M. Tanishima, H. Kaji, *J. Am. Chem. Soc.* **2013**, *135*, 11131.
- 5) A. Ohtsuki, L. Lei, M. Tanishima, A. Goto, H. Kaji, *J. Am. Chem. Soc.* **2015**, *137*, 5610.

These products are commercialized under the instruction of Prof. Atsushi Goto.

Related Products

Methyl Methacrylate (= MMA)

25mL / 500mL **[M0087]**

Butyl Acrylate (= BA)

25mL / 500mL **[A0142]**

Tributylmethylphosphonium Iodide (= BMPI)

5g / 25g **[M1455]**

Tetrabutylammonium Iodide (= BNI)

25g / 100g / 500g **[T0057]**

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