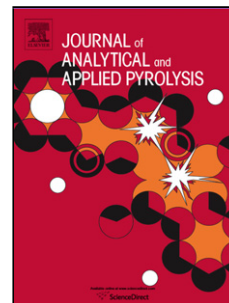


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# Pyrolysis mechanism and thermal degradation kinetics of poly(bisphenol A carbonate)-based polymers originating in waste electric and electronic equipment

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## Highlights

- Thermal degradation of polycarbonate follows a chain scission mechanism.
- Phenols and phenolic compounds are formed through a series of scission and hydrolysis reactions.
- The effective activation energy increases with conversion, ranging from 146 to 189 kJ/mol
- The random scission and the autocatalytic models were investigated in detail
- Best fit to the experimental data was achieved by the autocatalytic model with  $n=1.15$  and  $m=0.46$

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