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## Application of pyrolysis to recycling organics from waste tantalum capacitors

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### Highlights

- Pyrolysis was applied to recycling the organics before tantalum recovery from WTCs.
- The pyrolysis kinetic and decomposition mechanism of organics were analyzed.
- The organics were effectively decomposed and converted to char, oil and gas.
- The pyrolysis oil and gas could be recycled as energy resources.

### Abstract

Tantalum capacitors (TCs) are widely used in electronic appliances. The rapid replacement of electronic products results in generating large amounts of waste TCs (WTCs). WTCs, rich in valuable tantalum, are considered as high quality tantalum resources for recycling. However, environmental pollution will be caused if the

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