

# Sonochemistry Project Proposals

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## INTRODUCTION:

Broadening the knowledge base of sonochemistry and ultrasonic processing can be achieved by initiating small, short term projects investigating various aspect of sonic processing and sonochemistry. Some suggestions for small-scale projects are listed below. If you have any suggestion or other projects, please contact me at the address given below.

## INVESTIGATIONS:

Degradation and modeling studies:

- Model organic compounds (e.g. benzene, ethylbenzene, toluene, xylene)
- Phenols, and substituted phenols (chlorophenol)
- Volatile Organic Compounds (trihalomethanes, short chained chlorinated organics)
- Pesticides and Herbicides
- Dyes
- Cyanides

Textile related studies:

- Enhancement of dyeing
- Waste minimization

Paper and pulp industry:

- Enhanced bleaching
- Enhanced pulping
- Enhanced dewatering

Sterilization

- Medical applications
- Food industry

Environmental

- Soil decontamination/extraction

Sonochemistry and catalysis

- Synthesis of catalyst particles
- Investigation into catalytic systems

Sonoelectrochemistry

Polymer applications

Low powered, low intensity, high frequency applications:

- Enhancement of bacterial activity in activated sludge

If you have any queries about these projects, or are interested in participating in any of these, please feel free to contact me at:

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Or find the full postal address [here](#).

Charl Faul, August 1996

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