

Water-Coupled, Indirectly-Driven Glass MMM Reactors



Glass tube inside of the MMM Reactor



Any tube sizes can be applied (just to fit smaller into a larger)



Water-coupling: temperature can be easily controlled



Very simple mounting



Glass tube can be placed in any other MMM-tube reactor



Any steel vessel can be MMM agitated



There is negligible attenuation inside of the glass tube



Glass tube can be fully submerged inside of the reactor



MMM generator and Clamps PC-controlled: all parameters programmable

Applications:

- **Sonochemistry with very aggressive, corrosive and dangerous liquids.**
- **Precious Metals Recovery (process acceleration more than 10 times).**
- **Electroplating & Electrochemistry processes optimization.**
- **Reaction Acceleration** - cavitation accelerates chemical and physical reactions.
- **Fine Particle Dispersion** - e.g. **nanoparticles processing.**
- **Liquid food processing.**
- **Dissolution** - dissolving solids in solvents.
- **Degassing** - removing gases from solutions without heat or vacuum.
- Cylindrical **360° internally radiating** chamber.
- **Powders production in liquid phase** by precipitation (minimizing the particle sizes including surface treatment).
- **Extractions...**

WHITE-NOISE-SPECTRUM of ACOUSTIC AGITATION