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CEPTED MANUSCRIPT

**Bioapplications of Acoustic Crystals, A Review** 

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**Abstract** 

The acoustic crystal innovation is picking up fame as an emerging equipment for "Point of

Care" (POC) applications in biological part of clinics, while the unprecedented capability of

the technology is not perceived yet. The acoustic equipment are the attractive due to their

detecting properties of ultra-sensitivity and selectivity, reproducibility and repeatability,

precision and constancy. The first part of the review article highlights the "clinical overlapped

biological areas" especially focusing on proteins and cells, macro-molecules and supra-

molecules, drugs and chiral sensing, bio-markers and immuno-sensors, and "acoustic bio-

electronics" including an overview of the worldwide crystal market. The technology status has

been featured by utilizing the approach of "reviewing the reviews" for providing an overview

of the "world of the acoustic bio-applications". The second principle part of the article solidly

concentrates the acoustic investigations on haemostasis via reviewing the key literature from

2010 to January 2018.

Key Words: Acoustic Crystal; QCM-D; Bio-applications; Haemostasis; Review

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