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DEPARTMENT FOR AGRICULTURAL ENGINEERING**

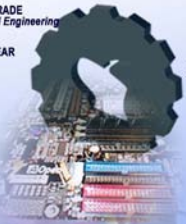
UNIVERSITY OF BASILICATA
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Faculty of Mechanical Engineering
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**INSTITUTE OF NUCLEAR
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BOOK OF ABSTRACTS

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TECHNICAL REVIEW ON THE APPLICATIONS OF ULTRASOUND IN AGRICULTURAL SYSTEMS

Ivan Zlatanović*, Milan Dražić, Kosta Gligorević,
Dušan Radojičić, Miloš Pajić

University of Belgrade – Faculty of Agriculture, Serbia
E-mail: ivan@agrif.bg.ac.rs

Abstract: *Ultrasonics is new science that is being intensively developed in recent years. Sound velocity is a valuable engineering tool and non-destructive, non-invasive, non-intrusive technique of measurement. The various effects of ultrasound were discussed and outlined in a context of different uses to accelerate or support agricultural production processes like: vibrational and heating effects, cavitation effects, speeding up biochemical processes, mutagenic effects, etc. Special attention was paid on crystallization and separation processes in operational engineering. This paper presents a review of ultrasonic wave application in agricultural production and modern agricultural systems.*

Key words: *Ultrasonics, ultrasound waves, agriculture engineering, bio systems engineering*