Title (en)

CONTINUOUS SHOCK WAVE FOOD PROCESSING WITH SHOCK WAVE REFLECTION

Title (de)

KONTINUIERLICHE SCHOCKWELLEN NAHRUNGSMITTELVERARBEITUNG MIT SCHOCKWELLENREFLEKTION

Title (fr)

TRAITEMENT D'ALIMENTS PAR ONDES DE CHOC CONTINUES AVEC REFLEXION DE CES ONDES

Publication

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Application

EP 99932221 A 19990702

Priority

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- US 9162198 P 19980702
- US 11561099 P 19990112
- US 12692199 P 19990329

Abstract (en)

[origin: WO0001242A1] Water and meat pieces (P) are pumped through a conduit (100), the walls of which are made of plastic having an acoustic impedance close to that of water. The conduit is immersed in a tank (400) full of water. A shock wave generator (200) (chemical explosive or capacitor discharge electrodes) creates a shock wave in the water. The shock wave passes through the conduit without substantial reflection because the impedance of the conduit wall matches the impedance of the water. The shock wave tenderizes and at least partially sterilizes the meat. A heavy-duty shock-reflective cylinder reflects portions of the shock pulse onto the conduit. Continual explosions are repeated rapidly enough that all of the meat passing through is tenderized. Alternatively, the meat is packed in water within a closed container in place of the conduit.

IPC 1-7 (main, further and additional classification)

A23B 4/015; A22C 9/00; A23L 3/015

IPC 8 full level (invention and additional information)

A22C 9/00 (2006.01); **A23B 4/015** (2006.01); **A23L 3/015** (2006.01); **A23L 13/00** (2016.01)

CPC (invention and additional information)

A22C 9/002 (2013.01); **A23B 4/015** (2013.01); **A23L 3/015** (2013.01)

Citation (search report)

See references of WO 0001242A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family

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