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Dedicated to Professor LAZĂR DRAGOŞ on his 75<sup>th</sup> birthday

## On a Nonlinear Evolution Equation in an Ordered Space

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**Abstract** - We review an existence and uniqueness result on a class of nonlinear evolution equations in an abstract Lebesgue space, and consider two applications, namely a Povzner model with chemical reactions and a example of nonlinear von Neuman equation.

**Key words and phrases :** nonlinear evolution equation, abstract Lebesgue space, isotone operator, positive semigroup, Boltzmann equation, Povzner equation, chemically reacting flows, von Neumann equation

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