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ENERGY DEMAND AND CARBON FOOTPRINT OF BLEACHING CHEMICALS

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ABSTRACT

Energy prices strongly increased in 2022 and may not stabilize quickly. It leads to additional challenges in meeting all at once competitive pulp bleaching costs and global targets on reduction of GHG emissions. The present paper intends reviewing energy demand for production of the main chemicals involved in bleaching of chemical pulp such as oxygen, ozone, chlorine dioxide and hydrogen peroxide as well the chemical precursors needed. Once done in a first part, carbon footprint will be assessed considering the influence of different national grids to help pulp producers and the local regulation authorities.

Keywords: bleaching, carbon footprint, electricity, energy, ozone