

## **Hydrochar from sewage sludge and urban wastes as a peat replacement in growing media preparation**

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Nowadays, there is an important trend in Europe for peat replacement with biochar in growing media formulation in order to reduce the environmental impact of peat exploitation. Hydrothermal carbonization (HTC) is a thermochemical process of converting organic feedstock into a high carbon rich solid product named hydrochar. It is performed in water mild temperature (180-260°C) under pressure conditions (2-6MPa) for 5-250 min. The reaction pressure is not controlled in the process and is autogenic with the saturation vapour pressure of water corresponding to the reaction temperature. In recent years, the possibility of subjecting organic wastes to HTC has attracted the scientific community attention due to their interesting advantages over other thermal treatments such as pyrolysis, torrefaction or gasification. The aim of the present paper is to study the possible use of two hydrochars produced by Ingelia (Spain) from sewage sludge and urban waste treatment as growing media material in horticulture. For this, thermal, chemical and hydrophysical properties were determined and compared with that of brown commercial peat.