Porosity is a factor affecting catalyst efficiency in pelletized form. This implies that care should be taken with uncritically relating activity measurements from transmission operando FTIR to final catalyst performance. If the pelleting pressure is excessive, a destruction of the pore structure of, for example, support oxides might take place, which in turn affects the pore size distribution and the porosity of the catalyst, leading to the observation of lower activity values due to decreased catalyst efficiency. This phenomenon can also apply to conventional activity measurements, in the cases that pelleting and recrushing of samples are performed to obtain adequate particle size fractions for the catalytic bed. A case study of an operando investigation of a V2O3-WO3/TiO2-sepiolite catalyst is used as an example, and simple calculations of the influence of catalyst activity and internal pore diffusion properties are considered in this paper for the evaluation of catalyst performance in, for example, operando reactors. Thus, it is demonstrated that with a pelleting pressure of...