This is a manuscript describing wonderful and detailed work showing in operando measurements of the carbon dioxide / carbonate interconversion on an electrode. It is a challenging problem, and it is indeed interesting to see that this reaction can be monitored in this way. I have the following minor comments:

(1) The discussion about the following is really quite unclear. I could not make sense of this from reading the text and looking at the figure: was the sample rotated or not, why? Do you really need mechanical separation? Why?

"To stabilize the sample inside the magnet and to achieve a mechanical separation of probe and cell, a dismounted turbine of a 135 magnet lift was fixed on top of the probe. A spinner was attached to the in operando cell, placed inside the turbine and inserted"

(2) The discussion in relationship to Fig. 4 is nice, but I would suggest to add the following references, which have also shown the orientation effects quite nicely:


This paper also discusses the orientation effect, and demonstrates it in Fig. S1:

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