In the edited text of the article, the fragments of language improvement are highlighted in lilac, and those added in accordance with the reviewers' comments are highlighted in yellow.

Reviewer #1	
This paper proposed an approach to simultaneously determining the distributions of electrical conductivity and magnetic permeability However, I have some additional comments for the authors:	
1. In the introduction, the authors should indicate some specific application scenarios using proposed method.	The Reviewer's recommendation has been taken into account and the text of the article has been amended accordingly.
2. In experiments, it is suggested that the authors could give an application case of the proposed measurement method so as to verify the superiority to other traditional measurement, The proposed algorithm is compared with the electromagnetic parameter decoupling algorithms in recent years, such as 10.1109/JSEN.2020.3038203, 10.1109/I2MTC53148.2023.10176103	In our opinion, the suggestion made by the Reviewer is hardly appropriate, since the peer-reviewed and the articles proposed for analysis solve completely different problems: In the peer-reviewed one, simultaneously with taking into account all the interconnevtions determined by the electromagnetic field theory, the distributions of electrophysical properties in the surface layer of the material are found from the measured signal of a transformer surface eddy current probe with sinusoidal excitation, The recommended methods based on the phenomena of invariance to separate them and taking into account the specifics of pulse excitation, establish only their integral values, which are characteristic of the object as a whole.
3. In theoretical analyses, it is necessary to give a schematic figure of the test object in order to understand the relevant derivations.	The Reviewer's recommendation has been taken into account and the text of the article has been amended accordingly.
4. “the maximum relative error of amplitude and phase in determining the vector potential did not exceed 0.2 % and 0.5 %, respectively.” It is necessary to give a graph of the results of the calculations and to analyze the reasons for the errors in the calculations.	The Reviewer's recommendation has been taken into account and the text of the article has been amended accordingly.
5. Highlight the innovation of the paper.	The Reviewer's recommendation has been taken into account and the text of the article has been amended accordingly.