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Abnormal Maximum in the Current during Isoelectric Focusing and Certain Possibilities to Control and Utilize It

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Studying the influence of the electrochemical reactions occurring at the electrodes on the attainment of steady state we found that an additional process occurs at the electrodes, causing an abnormal increase of the current. Since the magnitude of the current determines the progress of IEF, knowledge gained from studies on its nature and generation reveals a possibility for this entity to be controlled. We observed that the addition of gelatin into the electrode solutions suppresses the magnitude of the current flowing through the system, which allows the IEF system to approach steady state for a shorter time.

Key words: isoelectric focusing, abnormal current, control of the electric current.