

הנדך מוזמן/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות שתתקיים ביום ב' 3.12.2018
(כה' בכסלו, תשע"ט), בניין דן קאהן, אודיטוריום 1, 14:30.

מרצה: קסנדר ואן-קוטין

מנחה: פרופ' ח מורן ברקוביץ'

על הנושא:

On-chip separation and focusing using isotachopheresis with large-volume processing and analyte encapsulation

The seminar will be given in English

תקציר ההרצאה:

Sensitive biochemical assays are the cornerstone of in vitro medical diagnostics. However, achieving a relevant limit of detection remains challenging for many assays, leading to delays in diagnosis and treatment. We use an established electrophoretic technique called isotachopheresis (ITP) to concentrate and separate analytes in microfluidic channels. In this PhD seminar, we will present ways to overcome two of the limitations of on-chip ITP.

In the first part of this talk we will show how ITP can be used to process large sample volumes, enabling 100,000-fold focusing of molecular and microbial targets, and spatially resolved genotyping of human FFPE tissue sections. In the second part, we will present a method based on two-phase on-demand encapsulation to couple ITP to downstream analytical processes.

בברכה,

ד"ר איתן סאס

מרכז הסמינרים