



Annonsmall för examensarbete

Nedanstående information kommer att annonseras på COS/www.gecareers.com:

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| Handledare Sofia Edlund Peter Oliviusson | E-mail sofia.edlund@ge.com peter.oliviusson@ge.com | Tel 018-6120830 018-6121302 |
| Avdelning Protein Analysis (electrophoresis) | Sista ansökningsdatum 15 Aug 2008 | Projekt påbörjas 15 Sept 2008 |
| | | Avslutas 1 Feb 2009 |

Beskrivning av projektet:

Plan for 20p masters degree project at Electrophoresis department at GE Healthcare

Title: Buffer systems for electrophoresis

Within life-sciences SDS-electrophoresis is the most commonly used tool for separation of proteins. The aim of the project is to improve the understanding of the factors regulating the load capacity and resolution on gels, by exploring different buffer system for SDS-electrophoresis. This will be achieved by comparing gels based on the Laemmli buffer system, with other gels based on other buffer system. The test samples can be a mixture of a set of well defined proteins of different molecular weights such as carbonic anhydrase, B-lacto globulin etc. and/or a complex protein sample such as *E.coli*, cell lysate, or mouse liver samples. The sample proteins can be pre-stained using fluorescent tags and/or post stained in the gel after the electrophoresis has been run. The migration pattern and band shape will be compared (using image analysis software) between the gels but also the pH, current and conductivity will be monitored at the start of and during the process of electrophoresis. Results from measurements will be compared to theoretical expectations related to the different buffer compositions. Also, the effect of different buffer concentrations and sample loads on time required for completion of electrophoresis will be investigated.

Sofia Edlund and Peter Oliviusson, Uppsala 080612

Kvalifikationskrav:

- On going chemistry degree is preferred
- Molecular and biotechnology oriented education is preferred
- Laboratory skills
- 1D and 2D electrophoresis knowledge

Önskvärt (T.ex. egenskaper):

- Curious
- Accountable
- Committed
- Team worker