###### ZivaHub Open Data UCT files

This document gives the name and description, as stored on ZivaHub, of each appendix item for the MSc thesis titled: ‘Improving a process using aqueous two-phase systems for C-phycocyanin extraction from Spirulina,’ authored by James Hockey, and supervised by Prof. Susan T L Harrison and co-supervised by Dr Marijke Fagan-Endres.

The research was funded by the SARChI Chair in Bioprocess Engineering Research; NRF 64778.

Appendices

* 1. Leaching study data

**Data and results for leaching study of C-PC from spray dried *Spirulina* powder, using bead-milling and non-bead-milled control.**

* 1. Phase diagrams PEG – MDX data

**Data and results from phase diagram studies done using a PEG-MDX ATPS with differing PEG molecular weights.**

* 1. Phase diagrams PEG – citrate data

**Data and results from phase diagram experiments where phase diagrams were produced for the PEG-Citrate ATPS using different PEG molecular weights.**

* 1. PEG – MDX ATPS evaluation studies

**Data and results from experiments testing the purification of C-PC in the PEG-MDX ATPS developed by CeBER.**

* 1. Two-stage ATPS screening experiments

**Data and results from experiments to find the best PEG molecular weight for the 2-stage ATPS proposed, which used a PEG-citrate first stage followed by the PEG0MDX ATPS as the final stage**

* 1. PEG – citrate ATPS factorial design data

**Data and results for the factorially designed study on purifying C-PC with the PEG-Citrate ATPS stage of the two-stage process.**

* 1. PEG – MDX ATPS factorial design data

**Data and results for the factorially designed study on purifying C-PC with the PEG-MDX ATPS stage of the two-stage process.**

* 1. Original patented process stream tables

**Stream tables and material use for the original patented process for C-PC extraction and purification.**

* 1. Original patented process simulation file

***Superpro Designer* simulation file for the original patented process for C-PC extraction and purification.**

* 1. Two-stage ATPS process stream tables

****Stream tables and material use for the two-stage ATPS process****

* 1. Two-stage ATPS process simulation file

***Superpro Designer* simulation file for the two-stage ATPS process**

* 1. Two-stage ATPS process with recycle and UF stream tables

****Stream tables and material use for the two-stage ATPS process with recycle and UF****

* 1. Two-stage ATPS process with recycle and UF simulation file

***Superpro Designer* simulation file for the two-stage ATPS process with recycle and UF**

* 1. First iteration pre-treatment process stream tables

****Stream tables and material use for the first iteration pre-treatment process****

* 1. First iteration pre-treatment process simulation file

***Superpro Designer* simulation file for the first iteration pre-treatment process**

* 1. Pre-treatment process with filter sterilisation stream tables

****Stream tables and material use for the pre-treatment process with filter sterilisation****

* 1. Pre-treatment process with filter sterilisation simulation file

***Superpro Designer* simulation file for the pre-treatment process with filter sterilisation**