

2.30 p.m. - 2.45 p.m.	Influence of feedstock and production conditions on characteristics of biochar and its correlation for the adsorption of oxyanions: A Comprehensive metaanalysis	Lilogini Sutherson	Sameera R. Gunatilake	TA21
2.45 p.m. - 3.00 p.m.	A chemometric study on the effect of feedstock choice and pyrolysis conditions on biochar production and its influence on the remediation of pharmaceuticals from aqueous solutions.	Sachin Fernando	Sameera R. Gunatilake	TA22

### Abstracts of Research Papers to be presented at the 50<sup>th</sup> Annual Sessions 2021

Abstract No: PG 24

#### Semisynthetic derivatization studies of the fungal metabolite phomasetin with activity against the human parasite *Trichomonas vaginalis*

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Trichomoniasis is the most prevalent sexually transmitted parasitic disease (STD) in the United States and is caused by *Trichomonas vaginalis*. The tetramate-containing natural product, phomasetin, has been identified as a promising candidate with good activity ( $EC_{50} = 0.35 \mu M$ ) against this genitourinary tract parasite. A structure-activity study was undertaken to develop semi-synthetic derivatives of phomasetin with many of the derivatives containing modifications to the tetramate moiety using 'click' chemistry. The analogues containing triazole-linked phenol groups showed the

most pronounced improvements in activity compared to the other structural modifications. The semisynthetic analogues of phomasetin hold promise to improve treatment options against *T. vaginalis* through the creation of compounds that exhibit improved activity and selectivity against the parasite.

**Keywords:** tetramic acid, fungi, natural products, *Trichomonas vaginalis*