

---

---

## List of Tables

<b>Table No.</b>	<b>Title</b>	<b>Page no.</b>
1.1	Polymers used for membrane preparation	5
3.1	Composition of prepared membrane	41
4.1	Heavy metal rejection study of pristine polysulphone, unmodified polysulphone/azide-CNT mixed matrix membrane and modified polysulphone/azide-CNT mixed matrix membrane via click reaction	86
4.2	Heavy metal rejection study of pristine polyether sulphone, unmodified polyether sulphone/amine-CNT mixed matrix membrane and modified polyether sulphone/amine-CNT mixed matrix membrane using trimesoyl chloride (TMC) and cyanuric chloride (CC)	90
4.3	Heavy metal rejection study of pristine polysulphone, unmodified polysulphone/amine-CNT mixed matrix membrane and modified polysulphone/amine-CNT mixed matrix membrane using trimesoyl chloride (TMC) and cyanuric chloride (CC)	91
4.4	Heavy metal rejection study of pristine polyether sulphone, unmodified polyether sulphone/oxidized-CNT mixed matrix membrane and modified polyether sulphone/oxidized-CNT mixed matrix membrane using polyethylenimine (PEI)	93
4.5	Heavy metal rejection study of pristine polysulphone, unmodified polysulphone/oxidized-CNT mixed matrix membrane and modified polysulphone/oxidized-CNT mixed matrix membrane using polyethylenimine (PEI)	93
5.1	Surface roughness parameter of pristine polysulphone, polysulphone/azide-MWCNTs, and click reaction modified polysulphone/azide-MWCNTs mixed matrix membranes	97
5.2	Pore radius and Polydispersity of polysulphone/azide-MWCNTs, and click reaction modified polysulphone/azide-MWCNTs mixed matrix membranes	100
5.3	Surface roughness parameter of pristine polysulphone, polysulphone/amine-MWCNTs, and modified polysulphone/amine-MWCNTs mixed matrix membranes using trimesoyl chloride (TMC) and cyanuric chloride (CC)	105
5.4	Surface roughness parameter of pristine polysulphone, polysulphone/amine-MWCNTs, and modified polysulphone/amine-MWCNTs mixed matrix membranes using trimesoyl chloride (TMC) and cyanuric chloride (CC)	106

---

<b>5.5</b>	Pore radius and Polydispersity of pristine polysulphone, pristine polyether sulphone, polysulphone/amine-MWCNTs, polyether sulphone/amine-MWCNTs and modified polysulphone/amine-MWCNTs mixed matrix membranes using trimesoyl chloride (TMC) and cyanuric chloride (CC) from SANS profile	110
<b>5.6</b>	Surface roughness parameter of pristine polyether sulphone, polyether sulphone/oxidized-MWCNTs, and modified polyether sulphone/ oxidized -MWCNTs mixed matrix membranes using polyethylenimine (PEI)	115
<b>5.7</b>	Surface roughness parameter of pristine polysulphone, polysulphone/oxidized-MWCNTs, and modified polysulphone/ oxidized -MWCNTs mixed matrix membranes using polyethylenimine (PEI)	116
<b>5.8</b>	Pore radius and Polydispersity of pristine polysulphone, pristine polyether sulphone, polysulphone/oxidized-MWCNTs, polyether sulphone/ oxidized-MWCNTs and modified polysulphone/oxidized-MWCNTs and polyether sulphone/oxidized-MWCNTs mixed matrix membranes using polyethylenimine (PEI) from SANS profile	119

---