# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table No.</th>
<th>Title</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Common and popular names of <em>Psoralea corylifolia</em> around the world.</td>
<td>4</td>
</tr>
<tr>
<td>1.2</td>
<td>Biological activities attributed to <em>Psoralea corylifolia</em></td>
<td>8</td>
</tr>
<tr>
<td>2.1</td>
<td>Comparison of typical values of physical properties of fluids</td>
<td>16</td>
</tr>
<tr>
<td>2.2</td>
<td>Physical properties of some common solvents in SCF state</td>
<td>19</td>
</tr>
<tr>
<td>2.3</td>
<td>Advantages of SCCO₂ extraction Vs conventional solvent extraction</td>
<td>20</td>
</tr>
<tr>
<td>2.4</td>
<td>Commercial SCFE plants for extraction of various materials</td>
<td>24</td>
</tr>
<tr>
<td>2.5</td>
<td>Extract yield and bakuchiol content during SCF extraction</td>
<td>46</td>
</tr>
<tr>
<td>2.6</td>
<td>Experimental data showing cumulative extract Vs CO₂ consumed</td>
<td>48</td>
</tr>
<tr>
<td>2.7</td>
<td>Parameters of Logistic model for SCF extraction.</td>
<td>50</td>
</tr>
<tr>
<td>2.8</td>
<td>Parameters of Diffusion, Exponential and Langmuir models applied to</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>SCF extraction</td>
<td></td>
</tr>
<tr>
<td>2.9</td>
<td>Major compounds identified in the extract</td>
<td>56</td>
</tr>
<tr>
<td>2.10</td>
<td>Mass spectra data of the identified compounds</td>
<td>58</td>
</tr>
<tr>
<td>2.11</td>
<td>¹H and ¹³C NMR spectra data of purified compounds</td>
<td>59</td>
</tr>
<tr>
<td>2.12</td>
<td>Group contributions values of bakuchiol and psoralen as per Ambrose</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>method.</td>
<td></td>
</tr>
<tr>
<td>2.13</td>
<td>Group contributions values of bakuchiol and psoralen as per Joback</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>method.</td>
<td></td>
</tr>
<tr>
<td>2.14</td>
<td>Group contributions values of bakuchiol and psoralen as per</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>Klincewicz-Reid method</td>
<td></td>
</tr>
<tr>
<td>2.15</td>
<td>Group contributions values of bakuchiol and psoralen as per Lyderson</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>method.</td>
<td></td>
</tr>
<tr>
<td>2.16</td>
<td>Comparison of predicted critical properties of bakuchiol and psoralen</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>between different prediction methods.</td>
<td></td>
</tr>
<tr>
<td>2.17</td>
<td>Critical properties of some selected bioactives</td>
<td>68</td>
</tr>
<tr>
<td>2.18</td>
<td>Experimental solubility, predicted solubility and enhancement factor</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>for the extract and its key components by PR-EOS and SRK-EOS</td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Main components and their distilling temperature intervals</td>
<td>78</td>
</tr>
<tr>
<td>3.2</td>
<td>Coded and actual values of variables as per Box-Behnken design</td>
<td>83</td>
</tr>
<tr>
<td>3.3</td>
<td>Experimental and predicted values as per the response surface model</td>
<td>85</td>
</tr>
<tr>
<td>3.4</td>
<td>Regression analysis for the response surface equation fitting the</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>experimental data along with coefficients of the response surface</td>
<td></td>
</tr>
<tr>
<td></td>
<td>equation</td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>Some selected glycosides prepared through enzymatic glycosylation</td>
<td>99</td>
</tr>
<tr>
<td>4.2</td>
<td>Conversion yields and proportions of bakuchiol glycosides prepared</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>by the reflux method</td>
<td></td>
</tr>
<tr>
<td>4.3</td>
<td>Conversion yields and proportions of bakuchiol glycosides prepared</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td>under SCCO₂ condition</td>
<td></td>
</tr>
<tr>
<td>4.4</td>
<td>IC₅₀ values for Antioxidant activities of bakuchiol glycosides</td>
<td>122</td>
</tr>
<tr>
<td>4.5</td>
<td>IC₅₀ values for Angiotensin converting enzyme (ACE) inhibitory</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td>activities of bakuchiol glycosides</td>
<td></td>
</tr>
</tbody>
</table>