Table S1: The search strings used in this study

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Theme** | **Topic of interest** | **Search string** |
| 1. | Central | PCI research articles  (2236 records from 1995 to 2020) | TITLE-ABS ( ( "corrosion inhibit\*" ) AND (plant OR leaf OR flower OR fruit OR bark OR stem OR root OR peel OR extract ) ) AND ( LIMIT-TO ( PUBYEAR,2020) OR LIMIT-TO ( PUBYEAR,2019) OR LIMIT-TO ( PUBYEAR,2018) OR LIMIT-TO ( PUBYEAR,2017) OR LIMIT-TO ( PUBYEAR,2016) OR LIMIT-TO ( PUBYEAR,2015) OR LIMIT-TO ( PUBYEAR,2014) OR LIMIT-TO ( PUBYEAR,2013) OR LIMIT-TO ( PUBYEAR,2012) OR LIMIT-TO ( PUBYEAR,2011) OR LIMIT-TO ( PUBYEAR,2010) OR LIMIT-TO ( PUBYEAR,2009) OR LIMIT-TO ( PUBYEAR,2008) OR LIMIT-TO ( PUBYEAR,2007) OR LIMIT-TO ( PUBYEAR,2006) OR LIMIT-TO ( PUBYEAR,2005) OR LIMIT-TO ( PUBYEAR,2004) OR LIMIT-TO ( PUBYEAR,2003) OR LIMIT-TO ( PUBYEAR,2002) OR LIMIT-TO ( PUBYEAR,2001) OR LIMIT-TO ( PUBYEAR,2000) OR LIMIT-TO ( PUBYEAR,1999) OR LIMIT-TO ( PUBYEAR,1998) OR LIMIT-TO ( PUBYEAR,1997) OR LIMIT-TO ( PUBYEAR,1996) OR LIMIT-TO ( PUBYEAR,1995) ) |
| 2. | Central | PCI research without review articles  (1924 records) | TITLE-ABS ( ( "corrosion inhibit\*" ) AND (plant\* OR leaf OR flower OR fruit OR bark OR stem OR root OR peel OR extract ) ) AND ( LIMIT-TO ( PUBYEAR,2020) OR LIMIT-TO ( PUBYEAR,2019) OR LIMIT-TO ( PUBYEAR,2018) OR LIMIT-TO ( PUBYEAR,2017) OR LIMIT-TO ( PUBYEAR,2016) OR LIMIT-TO ( PUBYEAR,2015) OR LIMIT-TO ( PUBYEAR,2014) OR LIMIT-TO ( PUBYEAR,2013) OR LIMIT-TO ( PUBYEAR,2012) OR LIMIT-TO ( PUBYEAR,2011) OR LIMIT-TO ( PUBYEAR,2010) OR LIMIT-TO ( PUBYEAR,2009) OR LIMIT-TO ( PUBYEAR,2008) OR LIMIT-TO ( PUBYEAR,2007) OR LIMIT-TO ( PUBYEAR,2006) OR LIMIT-TO ( PUBYEAR,2005) OR LIMIT-TO ( PUBYEAR,2004) OR LIMIT-TO ( PUBYEAR,2003) OR LIMIT-TO ( PUBYEAR,2002) OR LIMIT-TO ( PUBYEAR,2001) OR LIMIT-TO ( PUBYEAR,2000) OR LIMIT-TO ( PUBYEAR,1999) OR LIMIT-TO ( PUBYEAR,1998) OR LIMIT-TO ( PUBYEAR,1997) OR LIMIT-TO ( PUBYEAR,1996) OR LIMIT-TO ( PUBYEAR,1995) ) AND ( LIMIT-TO ( DOCTYPE,"ar" ) OR LIMIT-TO ( DOCTYPE,"cp" ) ) AND ( LIMIT-TO ( SRCTYPE,"j" ) OR LIMIT-TO ( SRCTYPE,"p" ) ) |
| 3. | Sub | PCI on mild steel | TITLE-ABS ( ( "corrosion inhibit\*" ) AND (plant\* OR leaf OR flower OR fruit OR bark OR stem OR root OR peel OR extract ) AND ("mild steel" OR "carbon steel")) AND ( LIMIT-TO ( SRCTYPE,"j" ) OR LIMIT-TO ( SRCTYPE,"p" ) ) AND ( LIMIT-TO ( DOCTYPE,"ar" ) OR LIMIT-TO ( DOCTYPE,"cp" ) ) AND ( LIMIT-TO ( PUBYEAR,2020) OR LIMIT-TO ( PUBYEAR,2019) OR LIMIT-TO ( PUBYEAR,2018) OR LIMIT-TO ( PUBYEAR,2017) OR LIMIT-TO ( PUBYEAR,2016) OR LIMIT-TO ( PUBYEAR,2015) OR LIMIT-TO ( PUBYEAR,2014) OR LIMIT-TO ( PUBYEAR,2013) OR LIMIT-TO ( PUBYEAR,2012) OR LIMIT-TO ( PUBYEAR,2011) OR LIMIT-TO ( PUBYEAR,2010) OR LIMIT-TO ( PUBYEAR,2009) OR LIMIT-TO ( PUBYEAR,2008) OR LIMIT-TO ( PUBYEAR,2007) OR LIMIT-TO ( PUBYEAR,2006) OR LIMIT-TO ( PUBYEAR,2005) OR LIMIT-TO ( PUBYEAR,2004) OR LIMIT-TO ( PUBYEAR,2003) OR LIMIT-TO ( PUBYEAR,2002) OR LIMIT-TO ( PUBYEAR,2001) OR LIMIT-TO ( PUBYEAR,2000) OR LIMIT-TO ( PUBYEAR,1999) OR LIMIT-TO ( PUBYEAR,1998) OR LIMIT-TO ( PUBYEAR,1997) OR LIMIT-TO ( PUBYEAR,1996) OR LIMIT-TO ( PUBYEAR,1995) ) |
| 4. | Sub | PCI on aluminum | TITLE-ABS ( ( "corrosion inhibit\*" ) AND (plant\* OR leaf OR flower OR fruit OR bark OR stem OR root OR peel OR extract ) AND ("aluminium" OR "aluminum")) AND ( LIMIT-TO ( SRCTYPE,"j" ) OR LIMIT-TO ( SRCTYPE,"p" ) ) AND ( LIMIT-TO ( DOCTYPE,"ar" ) OR LIMIT-TO ( DOCTYPE,"cp" ) ) AND ( LIMIT-TO ( PUBYEAR,2020) OR LIMIT-TO ( PUBYEAR,2019) OR LIMIT-TO ( PUBYEAR,2018) OR LIMIT-TO ( PUBYEAR,2017) OR LIMIT-TO ( PUBYEAR,2016) OR LIMIT-TO ( PUBYEAR,2015) OR LIMIT-TO ( PUBYEAR,2014) OR LIMIT-TO ( PUBYEAR,2013) OR LIMIT-TO ( PUBYEAR,2012) OR LIMIT-TO ( PUBYEAR,2011) OR LIMIT-TO ( PUBYEAR,2010) OR LIMIT-TO ( PUBYEAR,2009) OR LIMIT-TO ( PUBYEAR,2008) OR LIMIT-TO ( PUBYEAR,2007) OR LIMIT-TO ( PUBYEAR,2006) OR LIMIT-TO ( PUBYEAR,2005) OR LIMIT-TO ( PUBYEAR,2004) OR LIMIT-TO ( PUBYEAR,2003) OR LIMIT-TO ( PUBYEAR,2002) OR LIMIT-TO ( PUBYEAR,2001) OR LIMIT-TO ( PUBYEAR,2000) OR LIMIT-TO ( PUBYEAR,1999) OR LIMIT-TO ( PUBYEAR,1998) OR LIMIT-TO ( PUBYEAR,1997) OR LIMIT-TO ( PUBYEAR,1996) OR LIMIT-TO ( PUBYEAR,1995) ) |
| 5. | Sub | PCI on stainless steel | TITLE-ABS ( ( "corrosion inhibit\*" ) AND (plant\* OR leaf OR flower OR fruit OR bark OR stem OR root OR peel OR extract ) AND ("stainless steel")) AND ( LIMIT-TO ( SRCTYPE,"j" ) OR LIMIT-TO ( SRCTYPE,"p" ) ) AND ( LIMIT-TO ( DOCTYPE,"ar" ) OR LIMIT-TO ( DOCTYPE,"cp" ) ) AND ( LIMIT-TO ( PUBYEAR,2020) OR LIMIT-TO ( PUBYEAR,2019) OR LIMIT-TO ( PUBYEAR,2018) OR LIMIT-TO ( PUBYEAR,2017) OR LIMIT-TO ( PUBYEAR,2016) OR LIMIT-TO ( PUBYEAR,2015) OR LIMIT-TO ( PUBYEAR,2014) OR LIMIT-TO ( PUBYEAR,2013) OR LIMIT-TO ( PUBYEAR,2012) OR LIMIT-TO ( PUBYEAR,2011) OR LIMIT-TO ( PUBYEAR,2010) OR LIMIT-TO ( PUBYEAR,2009) OR LIMIT-TO ( PUBYEAR,2008) OR LIMIT-TO ( PUBYEAR,2007) OR LIMIT-TO ( PUBYEAR,2006) OR LIMIT-TO ( PUBYEAR,2005) OR LIMIT-TO ( PUBYEAR,2004) OR LIMIT-TO ( PUBYEAR,2003) OR LIMIT-TO ( PUBYEAR,2002) OR LIMIT-TO ( PUBYEAR,2001) OR LIMIT-TO ( PUBYEAR,2000) OR LIMIT-TO ( PUBYEAR,1999) OR LIMIT-TO ( PUBYEAR,1998) OR LIMIT-TO ( PUBYEAR,1997) OR LIMIT-TO ( PUBYEAR,1996) OR LIMIT-TO ( PUBYEAR,1995) ) |
| 6. | Sub | PCI on copper | TITLE-ABS ( ( "corrosion inhibit\*" ) AND (plant\* OR leaf OR flower OR fruit OR bark OR stem OR root OR peel OR extract ) AND ("copper" OR "Cu")) AND ( LIMIT-TO ( SRCTYPE,"j" ) OR LIMIT-TO ( SRCTYPE,"p" ) ) AND ( LIMIT-TO ( DOCTYPE,"ar" ) OR LIMIT-TO ( DOCTYPE,"cp" ) ) AND ( LIMIT-TO ( PUBYEAR,2020) OR LIMIT-TO ( PUBYEAR,2019) OR LIMIT-TO ( PUBYEAR,2018) OR LIMIT-TO ( PUBYEAR,2017) OR LIMIT-TO ( PUBYEAR,2016) OR LIMIT-TO ( PUBYEAR,2015) OR LIMIT-TO ( PUBYEAR,2014) OR LIMIT-TO ( PUBYEAR,2013) OR LIMIT-TO ( PUBYEAR,2012) OR LIMIT-TO ( PUBYEAR,2011) OR LIMIT-TO ( PUBYEAR,2010) OR LIMIT-TO ( PUBYEAR,2009) OR LIMIT-TO ( PUBYEAR,2008) OR LIMIT-TO ( PUBYEAR,2007) OR LIMIT-TO ( PUBYEAR,2006) OR LIMIT-TO ( PUBYEAR,2005) OR LIMIT-TO ( PUBYEAR,2004) OR LIMIT-TO ( PUBYEAR,2003) OR LIMIT-TO ( PUBYEAR,2002) OR LIMIT-TO ( PUBYEAR,2001) OR LIMIT-TO ( PUBYEAR,2000) OR LIMIT-TO ( PUBYEAR,1999) OR LIMIT-TO ( PUBYEAR,1998) OR LIMIT-TO ( PUBYEAR,1997) OR LIMIT-TO ( PUBYEAR,1996) OR LIMIT-TO ( PUBYEAR,1995) ) |
| 7. | Sub | PCI on NaCl or seawater | TITLE-ABS ( ( "corrosion inhibit\*" ) AND (plant\* OR leaf OR flower OR fruit OR bark OR stem OR root OR peel OR extract ) AND ("seawater" OR "NaCl")) AND ( LIMIT-TO ( SRCTYPE,"j" ) OR LIMIT-TO ( SRCTYPE,"p" ) ) AND ( LIMIT-TO ( DOCTYPE,"ar" ) OR LIMIT-TO ( DOCTYPE,"cp" ) ) AND ( LIMIT-TO ( PUBYEAR,2020) OR LIMIT-TO ( PUBYEAR,2019) OR LIMIT-TO ( PUBYEAR,2018) OR LIMIT-TO ( PUBYEAR,2017) OR LIMIT-TO ( PUBYEAR,2016) OR LIMIT-TO ( PUBYEAR,2015) OR LIMIT-TO ( PUBYEAR,2014) OR LIMIT-TO ( PUBYEAR,2013) OR LIMIT-TO ( PUBYEAR,2012) OR LIMIT-TO ( PUBYEAR,2011) OR LIMIT-TO ( PUBYEAR,2010) OR LIMIT-TO ( PUBYEAR,2009) OR LIMIT-TO ( PUBYEAR,2008) OR LIMIT-TO ( PUBYEAR,2007) OR LIMIT-TO ( PUBYEAR,2006) OR LIMIT-TO ( PUBYEAR,2005) OR LIMIT-TO ( PUBYEAR,2004) OR LIMIT-TO ( PUBYEAR,2003) OR LIMIT-TO ( PUBYEAR,2002) OR LIMIT-TO ( PUBYEAR,2001) OR LIMIT-TO ( PUBYEAR,2000) OR LIMIT-TO ( PUBYEAR,1999) OR LIMIT-TO ( PUBYEAR,1998) OR LIMIT-TO ( PUBYEAR,1997) OR LIMIT-TO ( PUBYEAR,1996) OR LIMIT-TO ( PUBYEAR,1995) ) |
| 8. | Sub | PCI on HCl or hydrochloric acid | TITLE-ABS ( ( "corrosion inhibit\*" ) AND (plant\* OR leaf OR flower OR fruit OR bark OR stem OR root OR peel OR extract ) AND ("hydrochloric acid" OR "HCl")) AND ( LIMIT-TO ( SRCTYPE,"j" ) OR LIMIT-TO ( SRCTYPE,"p" ) ) AND ( LIMIT-TO ( DOCTYPE,"ar" ) OR LIMIT-TO ( DOCTYPE,"cp" ) ) AND ( LIMIT-TO ( PUBYEAR,2020) OR LIMIT-TO ( PUBYEAR,2019) OR LIMIT-TO ( PUBYEAR,2018) OR LIMIT-TO ( PUBYEAR,2017) OR LIMIT-TO ( PUBYEAR,2016) OR LIMIT-TO ( PUBYEAR,2015) OR LIMIT-TO ( PUBYEAR,2014) OR LIMIT-TO ( PUBYEAR,2013) OR LIMIT-TO ( PUBYEAR,2012) OR LIMIT-TO ( PUBYEAR,2011) OR LIMIT-TO ( PUBYEAR,2010) OR LIMIT-TO ( PUBYEAR,2009) OR LIMIT-TO ( PUBYEAR,2008) OR LIMIT-TO ( PUBYEAR,2007) OR LIMIT-TO ( PUBYEAR,2006) OR LIMIT-TO ( PUBYEAR,2005) OR LIMIT-TO ( PUBYEAR,2004) OR LIMIT-TO ( PUBYEAR,2003) OR LIMIT-TO ( PUBYEAR,2002) OR LIMIT-TO ( PUBYEAR,2001) OR LIMIT-TO ( PUBYEAR,2000) OR LIMIT-TO ( PUBYEAR,1999) OR LIMIT-TO ( PUBYEAR,1998) OR LIMIT-TO ( PUBYEAR,1997) OR LIMIT-TO ( PUBYEAR,1996) OR LIMIT-TO ( PUBYEAR,1995) ) |
| 9. | Sub | PCI on H2SO4 or sulfuric acid | TITLE-ABS ( ( "corrosion inhibit\*" ) AND (plant\* OR leaf OR flower OR fruit OR bark OR stem OR root OR peel OR extract ) AND ("H2SO4" OR "sulfuric acid" OR "sulphuric acid")) AND ( LIMIT-TO ( SRCTYPE,"j" ) OR LIMIT-TO ( SRCTYPE,"p" ) ) AND ( LIMIT-TO ( DOCTYPE,"ar" ) OR LIMIT-TO ( DOCTYPE,"cp" ) ) AND ( LIMIT-TO ( PUBYEAR,2020) OR LIMIT-TO ( PUBYEAR,2019) OR LIMIT-TO ( PUBYEAR,2018) OR LIMIT-TO ( PUBYEAR,2017) OR LIMIT-TO ( PUBYEAR,2016) OR LIMIT-TO ( PUBYEAR,2015) OR LIMIT-TO ( PUBYEAR,2014) OR LIMIT-TO ( PUBYEAR,2013) OR LIMIT-TO ( PUBYEAR,2012) OR LIMIT-TO ( PUBYEAR,2011) OR LIMIT-TO ( PUBYEAR,2010) OR LIMIT-TO ( PUBYEAR,2009) OR LIMIT-TO ( PUBYEAR,2008) OR LIMIT-TO ( PUBYEAR,2007) OR LIMIT-TO ( PUBYEAR,2006) OR LIMIT-TO ( PUBYEAR,2005) OR LIMIT-TO ( PUBYEAR,2004) OR LIMIT-TO ( PUBYEAR,2003) OR LIMIT-TO ( PUBYEAR,2002) OR LIMIT-TO ( PUBYEAR,2001) OR LIMIT-TO ( PUBYEAR,2000) OR LIMIT-TO ( PUBYEAR,1999) OR LIMIT-TO ( PUBYEAR,1998) OR LIMIT-TO ( PUBYEAR,1997) OR LIMIT-TO ( PUBYEAR,1996) OR LIMIT-TO ( PUBYEAR,1995) ) |
| 10. | Sub | PCI on HNO3 or nitric acid | TITLE-ABS ( ( "corrosion inhibit\*" ) AND (plant\* OR leaf OR flower OR fruit OR bark OR stem OR root OR peel OR extract ) AND ("HNO3" OR "nitric acid")) AND ( LIMIT-TO ( SRCTYPE,"j" ) OR LIMIT-TO ( SRCTYPE,"p" ) ) AND ( LIMIT-TO ( DOCTYPE,"ar" ) OR LIMIT-TO ( DOCTYPE,"cp" ) ) AND ( LIMIT-TO ( PUBYEAR,2020) OR LIMIT-TO ( PUBYEAR,2019) OR LIMIT-TO ( PUBYEAR,2018) OR LIMIT-TO ( PUBYEAR,2017) OR LIMIT-TO ( PUBYEAR,2016) OR LIMIT-TO ( PUBYEAR,2015) OR LIMIT-TO ( PUBYEAR,2014) OR LIMIT-TO ( PUBYEAR,2013) OR LIMIT-TO ( PUBYEAR,2012) OR LIMIT-TO ( PUBYEAR,2011) OR LIMIT-TO ( PUBYEAR,2010) OR LIMIT-TO ( PUBYEAR,2009) OR LIMIT-TO ( PUBYEAR,2008) OR LIMIT-TO ( PUBYEAR,2007) OR LIMIT-TO ( PUBYEAR,2006) OR LIMIT-TO ( PUBYEAR,2005) OR LIMIT-TO ( PUBYEAR,2004) OR LIMIT-TO ( PUBYEAR,2003) OR LIMIT-TO ( PUBYEAR,2002) OR LIMIT-TO ( PUBYEAR,2001) OR LIMIT-TO ( PUBYEAR,2000) OR LIMIT-TO ( PUBYEAR,1999) OR LIMIT-TO ( PUBYEAR,1998) OR LIMIT-TO ( PUBYEAR,1997) OR LIMIT-TO ( PUBYEAR,1996) OR LIMIT-TO ( PUBYEAR,1995) ) |