

بسمه تعالی

فرم چکیده سخنرانی ژورنال کلاب دانشجویان دکترا ورودی

دانشکده بهداشت - گروه مهندسی بهداشت محیط

 نام و نام خانوادگی دانشجو : سمیرا شکری جوکاری
 استاد راهنمای آموزشی: دکتر نبی شریعتی فر

شماره دانشجویی: ۹۹۲۱۳۰۵۰۰۲

عکس دانشجو:



ساعت: ۱۰

تاریخ: ۱۴۰۲/۴/۲۵

عنوان مقاله :

The degradation of *Alternaria* mycotoxins by dielectric barrier discharge cold plasma

چکیده :

In the present study, dielectric barrier discharge cold plasma was explored to treat alternariol (AOH) and alternariol monomethyl ether (AME) and the effect of mycotoxin states and plasma conditions on degradation were evaluated. The results showed that in either a solid state or aqueous solution, ۱۰۰٪ AOH and AME were degraded within ۱۸۰ s and ۳۰۰ s, respectively. With the increase of voltage, both of AOH and AME degradation increased and reached nearly ۱۰۰٪ at ۳۰ kV and ۴۰ kV, respectively. The degradation percentage of two mycotoxins was the highest (۱۰۰٪) in alkaline condition, but lower in neutral and acidic environment. In the presence of catalysts FeSO_۴ or H_۲O_۲, the time for complete degradation of both toxins was shortened. In conclusion, both mycotoxins could be effectively degraded by cold plasma and AOH was easier to be degraded than AME. Besides, the degradation of both toxins could be promoted by higher voltage, alkaline environment and catalysts FeSO_۴ and H_۲O_۲. The results of this study provide a theoretical basis for the removal of *Alternaria* mycotoxins from food systems and are useful for the investigation of the mechanisms involved in mycotoxin degradation by cold plasma.

شماره :



دانشگاه علوم پزشکی و خدمات
پزشکی تبریز