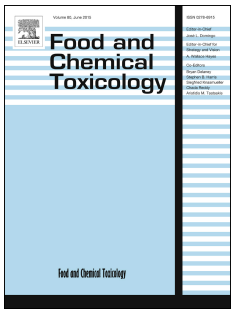
Accepted Manuscript



Can nonalcoholic beer, silicon and hops reduce the brain damage and behavioral changes induced by aluminum nitrate in young male Wistar rats?

P. Merino, J.A. Santos-López, C.J. Mateos, I. Meseguer, A. Garcimartín, S. Bastida, F.J. Sánchez-Muniz, J. Benedí, M.J. González-Muñoz

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CURIOSITY
READING
GROOMING
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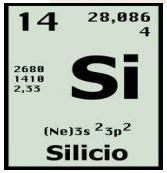
REACTION TIME
SWIMMING TIME
IMMOBILITY TIME
DEFECATION INDEX

BEHAVIORAL IMPAIRMENT

OXIDATION

INFLAMMATION



Attenuation of aluminum-induced changes. Brain protection

↑CAT, Mn-SOD,
Cu/Zn-SOD and GR expression,
↑GSSG and GSH, ↓TBARS, ↓TNFα

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BEHAVIORAL NORMALIZATION