


[DOWNLOAD](#)


Biomolecular Effects of Cold Plasma Exposure

By Rakesh Mogul

BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 32 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. The effects of cold plasma exposure on *Deinococcus radiodurans*, plasmid DNA and model proteins were assessed using microbiological, spectrometric and biochemical techniques. Exposure of *D. radiodurans*, an extremely radiation resistant microbe, to O₂ plasma (less than or equal to 25 W, approx. 45 mTorr, 90 min) yielded a approx. 99.999 sterilization and the sterilization rate was increased approx. 10-fold at 100 W and 500 mTorr. AFM images shows that the exposed cells are significantly deformed and possess 50-70 nm concavities. IR analysis indicates the chemical degradation of lipids, proteins and carotenoids of the cell wall and membrane. Intracellular damage was indicated by major absorbance loss at 1245, 1651 and 1538cm corresponding to degradation of DNA and proteins, respectively. Biochemical experiments demonstrate that plasmas induce strand scissions and crosslinking of plasmid DNA, and reduction of enzyme activity; the degradation is power dependent with total sample loss occurring in 60 s at 200 W and 500 mTorr. Emission spectroscopy shows that *D. radiodurans* is volatilized into CO₂, CO, N₂ and H₂O confirming the removal of biological matter from contaminated surfaces. The O₂...


[READ ONLINE](#)

[1.46 MB]

Reviews

This pdf is wonderful. It is definitely simplified but excitement from the 50 percent in the ebook. You wont sense monotony at at any time of your time (that's what catalogues are for relating to should you request me).

-- **Jaqueline Kerluke**

I just started looking at this pdf. It can be rally fascinating throgh studying period of time. Its been printed in an extremely basic way and is particularly only following i finished reading through this publication where in fact altered me, change the way i really believe.

-- **Mr. Stephan McKenzie**

Related PDFs



Animalogy: Animal Analogies

Sylvan Dell Publishing. Paperback. Book Condition: New. Cathy Morrison (illustrator). Paperback. 32 pages. Dimensions: 9.8in. x 8.4in. x 0.4in. Compare and contrast different animals through predictable, rhyming analogies. Find the similarities between even the most incompatible animals . . . bat is to...



The Whale Tells His Side of the Story Hey God, Ive Got Some Guy Named Jonah in My Stomach and I Think Im Gonna Throw Up

B&H Kids. Hardcover. Book Condition: New. Cory Jones (illustrator). Hardcover. 32 pages. Dimensions: 9.1in. x 7.2in. x 0.3in. Oh sure, we all heard the story of Jonah and the Whale a hundred times. But have we heard it from the perspective of the...



The Mystery at Motown Carole Marsh Mysteries

Carole Marsh Mysteries. Paperback. Book Condition: New. Randolyn Friedlander (illustrator). Paperback. 32 pages. Dimensions: 11.1in. x 8.7in. x 0.0in. When you purchase the Library Bound mystery you will receive FREE online eBook access! Carole Marsh Mystery Online eBooks are an easy, effective, and...



Good Night, Zombie Scary Tales

Feiwei & Friends. Paperback. Book Condition: New. Iacopo Bruno (illustrator). Paperback. 112 pages. Dimensions: 8.2in. x 5.4in. x 0.2in. Welcome. Have a seat. Ignore the shambling undead outside. Let us tell you a story. But be warned. Good Night, Zombie isnt just any...



God Loves You. Chester Blue

Henry and George Press. Paperback. Book Condition: New. Ursula Andrejczuk (illustrator). Paperback. 140 pages. Dimensions: 8.0in. x 5.2in. x 0.3in. BEAUTIFUL NEW ILLUSTRATIONS BRING THE STORY TO LIFE! A charming book about a mysterious bear that shows up in the right place at just...



Yearbook Volume 15

RareBooksClub. Paperback. Book Condition: New. This item is printed on demand. Paperback. 58 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. This historic book may have numerous typos and missing text. Purchasers can usually download a free scanned copy of the original book (without...