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Home Page
My three years as President of IRPS are fast drawing to a close and I am wondering what progress, if any, has occurred in this time.

One important change certainly has been that information about our membership is now much more up to date, for which thanks are due to Mic Farquharson, who invested a considerable amount of time and patience in this exercise. Importantly we have stopped spending money we could ill afford on circulating the newsletter worldwide in hard copy form, often to lapsed members who had not paid our (very modest) membership fees for a number of years. Most of you will be reading this at your computers, or will have printed it out from an email attachment. Thank you for accepting the Bulletin in this electronic form. It enables up to keep our very meagre financial resources for more useful purposes.

The downside of this operation has been the realisation that we are still a small Society and one whose membership grows older and older with each passing year. We need new blood! My plea to you is to help us recruit research students and young scientists to IRPS; your colleagues, your colleagues’ students and research assistants...........

Bring them to our symposia and workshops, get them to write articles on their research projects for the Bulletin and involve them in the worldwide community of radiation physics though our Society, and of course get them to become members.

Otherwise I fear there will come a time, not so far in the future, when there will be no IRPS.

Malcolm Cooper
The scientific areas covered were:

- Experimental and theoretical studies of light pulse generation in the far infrared.
- Experimental and theoretical studies of the interaction of photons with isolated systems (atoms and molecules).
- Diagnostic of nanostructured arrays using spectroscopic tools available at synchrotron sources.
- To end the session, a talk was given by Franz Himpsel, a followup workshop on Scattering - Neutron, X-ray and Raman Intense,Ultrafast Lasers by Todd Ditmire.

The workshop finished with a round table discussion for future collaborative meetings.

The objective of these tutorials was to introduce the forefronts of these specific scientific areas. Twelve researchers from India were invited to attend. Additional information can be found on the workshop website: [Argonne National Laboratory](http://www.anl.gov).

The three-day workshop provided relaxed surroundings leading to many new and renewed contacts and much enthusiasm for collaborative projects. A website, [www.anl.gov](http://www.anl.gov), will be maintained to continue discussion and collaboration on future projects.

The Indo-US Workshop on Radiation Physics with Synchrotrons and Other New Sources was a great success, and the IRPS is pleased to help bring together Indian and U.S. scientists in this area. More detailed information on ENPA can be found on its web site: [http://www.geocities.com/Athens/Library/7348/Enpa.html](http://www.geocities.com/Athens/Library/7348/Enpa.html)

Wishing success to our colleague Odair, as he is best known, the IRPS is grateful for his important contributions to the field of radiation physics.
We address the theme of international collaborations based on accelerator-based sciences, leading to an increased collaboration among these scientists. This has resulted in the establishment of new Forums including the Asian Accelerator Physics Conference (APAC) in 1998, Asian Accelerator Schools (AAS) in 1999, and the Asian Synchrotron Light Source (ASLS) in 2000. These initiatives have contributed to the development of new facilities and the growth of the region's scientific community. With strong economic support and governmental funding, the region is poised for continued growth in the field of accelerator-based sciences.

With all the remarkable developments cited above the International Asian Facility (IAF) is moving towards a new phase of development. The IAF is a collaborative effort between Asia and Australia to build a synchrotron radiation facility that will provide a world-class research infrastructure for the region. The IAF is a regional facility that will be shared by multiple countries in the region, allowing for a more efficient use of resources and a greater impact on regional science.

The IAF is positioned to become a leader in synchrotron radiation research in the region and is expected to provide a significant boost to the region's economy. With the potential for new discoveries and innovations, the IAF will be an important driver of economic growth and job creation.

In conclusion, the IAF is a significant step forward for the region and will provide a valuable resource for scientists and researchers. The IAF is an example of how international collaboration can lead to positive outcomes for all parties involved. With continued support and funding, the IAF will be able to deliver on its promise and make a significant impact on the region's scientific community.
Palm Oil Deterioration Induced by Ionizing Radiation

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INTRODUCTION

The present work was carried out to determine the effects of ionizing radiation on the physical and chemical properties of palm oil. It was hypothesized that the deterioration of palm oil due to irradiation would be minimal. The physical and chemical properties of the oil were determined for x-irradiated and thermoxidized samples respectively. These were compared with those of fresh oil samples.

MATERIALS AND METHODS

The oil samples were obtained from a palm oil processing company in Nigeria. The oil was obtained in the form of edible vegetable oil. The fresh oil samples were stored in a refrigerator at 4°C and the x-irradiated oil was stored at room temperature. The thermoxidized oil was stored at room temperature.

The peroxide value was determined by the Wijs' method described by IFFO (1998) in which the test was conducted for the fresh, x-irradiated and thermoxidized oil samples. The iodine value was determined by the method of the American Oil Chemists' Society (AOCS, 1993) for the fresh, x-irradiated and thermoxidized oil samples.

RESULTS

The results obtained for the fresh, x-irradiated and thermoxidized oil samples are shown in Table 1. The peroxide value increased by as much as 52.5% for x-irradiated oil and 3.5% for thermoxidized oil. The iodine value decreased by 5.7% for x-irradiated oil and 1.2% for thermoxidized oil.

DISCUSSION AND CONCLUSION

The results suggest a significant increase in the toxicity of x-irradiated palm oil. It is therefore recommended that palm oil samples be subjected to radiation at levels that do not exceed 10000 Gy. This would ensure that the deterioration of the oil is minimal.

REFERENCES


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- Prof. Odair Dias Goncalves,  Brazil
- Dr Ayad Miftah Shahout,  Libya

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