

FOOD AUTHENTICITY TESTING BY NUCLEAR MAGNETIC RESONANCE (NMR TRAINING)

23rd - 27th
SEPTEMBER 2024

Food authenticity testing using Nuclear Magnetic Resonance (NMR) is a powerful technique to verify the composition and quality of food products. NMR spectroscopy can be applied to analyses the chemical composition of food items, including the identification and quantification of various components. Here is a general overview of how NMR can be used for food authenticity testing, along with some key considerations for sampling analysis:



Day 1	23-09-24	EVENTS
09.00 – 09.30 am	Registration and Climate Setting	
09.30 – 10.00 am	Overview and introduction to NMR	
10.00 – 10.30 am	TEA- BREAK	
10.30 – 12.30 p.m	How to Utilize a high-resolution NMR spectrometer	
12-30 – 14.00 p.m	LUNCH - BREAK	
14.00 – 16.00 p.m	<ul style="list-style-type: none"> NMR Instrumentation & Calibration the instrument for accuracy Choice of the appropriate NMR probe (solid/liquid). 	

Chrom Africa Instrumentation Services Limited

Buruburu Business Complex Suite No.26, Mumias South Road, Nairobi.

P.O Box 4963-00100, Nairobi, Kenya.

Phone number: (20) 2594918

Email info@chromafrica.co.ke | info@chromafrica.com

www.chromafrica.com www.chromafrica.co.ke

Day 2	24-09-24	EVENTS
9.00 – 10.30 am		How to obtain representative samples from various sources
10.30 – 11.00 am		TEA- BREAK
11.00 – 12.30 p.m		1. Sample Collection &How to Ensure an adequate sample size <ul style="list-style-type: none"> • Sample preservation and how to store samples to prevent degradation
12-30 – 14.00 p.m		LUNCH - BREAK
14.00 – 16.30 p.m		2. Sample Preparation &Homogenization

Day 3	25-09-24	EVENTS
9.00 – 10.30 am		Extraction compounds if necessary
10.30 – 11.00 am		TEA- BREAK
11.00 – 12.30 p.m		Drying samples to reduce interference (if applicable)
12-30 – 14.00 p.m		LUNCH - BREAK
14.00 – 16.30 p.m		How to Select the appropriate NMR experiments

Day 4	26-09-24	EVENTS
9.00 – 10.30 am		High Resolution NMR analysis for Coffee Adulteration (Practical's)
10.30 – 11.00 am		TEA- BREAK
11.00 – 12.30 p.m		Honey Adulteration (Practical's)
12-30 – 14.00 p.m		LUNCH - BREAK
14.00 – 15.30 p.m		<ul style="list-style-type: none"> • Non-alcoholic beverages Adulteration analysis (Practical's) • High Resolution NMR Meat Adulteration analysis (Practical's)

Day 5	27-09-24	EVENTS
9.00 – 10.30 am		<ul style="list-style-type: none"> • Data Acquisition • Process NMR data through Fourier transformation, baseline correction, and phasing
10.30 – 11.10 am		TEA- BREAK
11.00 – 12.30 p.m		<ul style="list-style-type: none"> • Interpret NMR spectra to identify and quantify compounds • Compare acquired data to reference spectra and databases. • Apply statistical analysis and multivariate methods for authenticity assessment
12-30 – 14.00 p.m		LUNCH - BREAK
14.00 – 15.00 p.m		Directors speech and issue of certificates



Deadline: 11th September 2024

23rd – 27th
SEPTEMBER 2024

Cost Kes. 92,800.00
or USD 928.00

NAIROBI

Chrom Africa Instrumentation Services Limited

Buruburu Business Complex Suite No.26, Mumias South Road, Nairobi.

P.O Box 4963-00100, Nairobi, Kenya.

Phone number: (20) 2594918

Email info@chromafrica.co.ke | info@chromafrica.com www.chromafrica.com/

www.chromafrica.co.ke

