

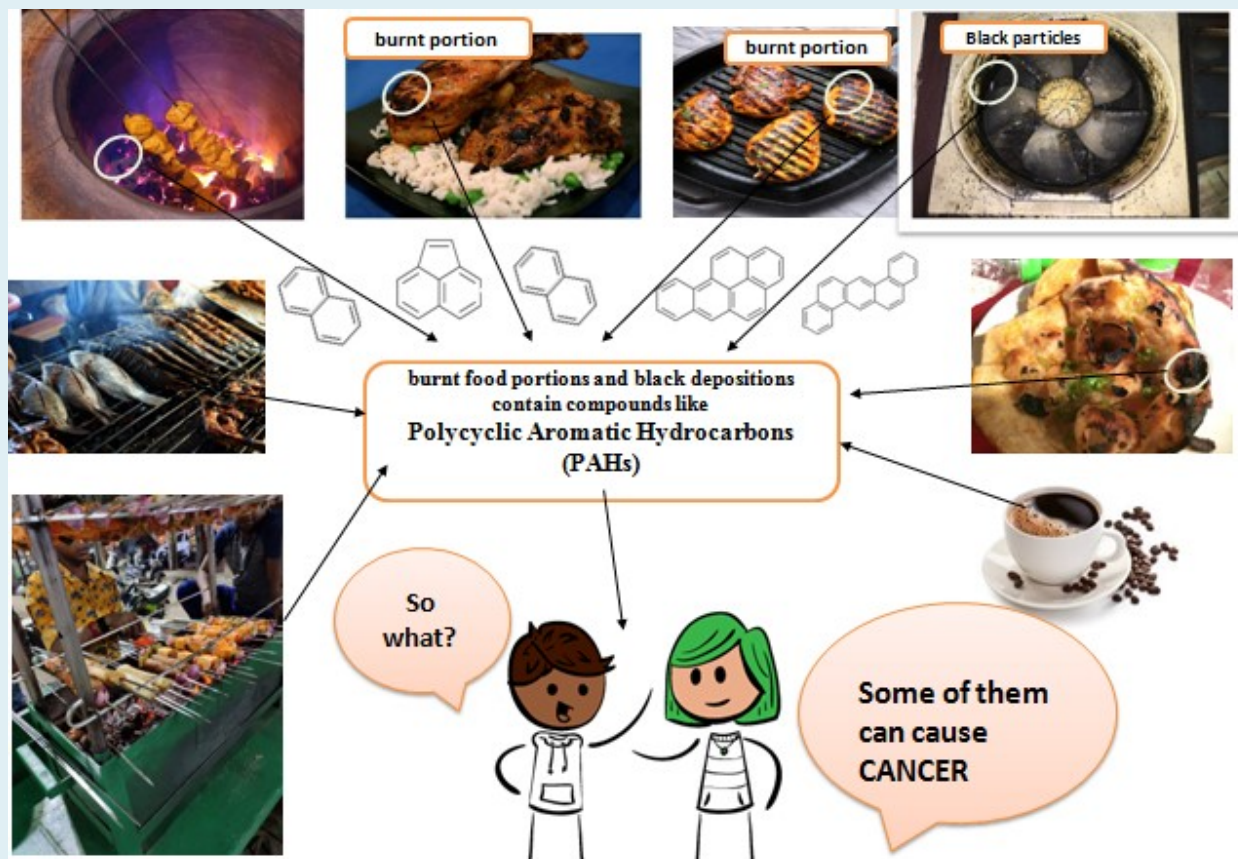
Assessment of Toxic Chemicals (PAHs) in Food and Kitchen

Salient features

- Number of industrial processes and cooking lead to significant formation of PAHs (carcinogen) in the food product and cooking environment
- Studies and regulations are lacking in India on the presence of PAHs in various food products
- Standardized protocol was developed for the detection of these compounds in food products and cooking environment (through kitchen exhaust depositions)

Advantages

- ✓ Detection of toxic compounds will aid in development of regulations and policies.
- ✓ Proposed interventions and suggestions may reduce PAHs exposure and cancer risk in Indian population



Process Technology developed by

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<i>More information</i>	<p>Status of commercialization / Patent / Publication</p> <p>Singh, L. and Agarwal, T. 2020. Quantification of polycyclic aromatic hydrocarbons in kitchen depositions by SUPRAS-LC-FLR and human health risk assessment. <i>Environmental Research</i>, 187, 109648.</p> <p>Singh, L., Agarwal, T. and Simal-Gandara, J. 2020. PAHs, diet and cancer prevention: Cooking process driven-strategies. <i>Trends in Food Science and Technology</i>, 99, 487-506.</p> <p>Singh, L. and Agarwal, T. 2018. Polycyclic Aromatic Hydrocarbons in diet: Concern for public health. <i>Trends in Food Science & Technology</i>, 79, 160-17.</p> <p>Singh, L. and Agarwal, T. 2018. PAHs in Indian diet: Assessing the cancer risk. <i>Chemosphere</i>, 202, 366-376.</p> <p>Singh, L., Varshney, J. G. and Agarwal, T. 2016. Polycyclic aromatic hydrocarbons' formation and occurrence in processed food. <i>Food chemistry</i>, 199,768-781.</p> <p>Singh, L. and Agarwal, T. 2020. Polycyclic Aromatic Hydrocarbons in processed food: Scientific Challenges and research recommendations. In: <i>Mitigating Contamination from Food Processing</i>. Birch, C.S. & Bonwick, G.A. (eds.), Royal Society of Chemistry (RSC).</p>