

Government of India  
Bhabha Atomic Research Centre  
Nuclear Recycle Group  
Process Development Division

Ref: PSDD/SDS/DN/2018/106703

Date:31/05/2018

**Sub: Synthesis of 1,3-dioctyloxy-calix[4]arene from 4-tert-butylcalix[4]arene**

You are requested to submit your quotation in sealed envelope for the above mentioned job to be carried out in your works and supplied to PSDD, BARC Trombay. The reference no. given above should be clearly mentioned on the sealed envelope.

Quotation shall be complete in all respects with regard to specifications, validity of offer etc., and must reach the following address **by speed post only** on or before **15/06/2018 by 14:00 hr.** and will be opened at 15:00 hr in presence of the nominated officers by Accounts Division, BARC.

Dr. (Mrs.) Deepika Nair  
SO/D, SDS, PSDD  
Room no. DC-20, DC-building, ETP-DC Complex  
BARC, Trombay, Mumbai-400 085  
Tel: 022-2559 [REDACTED] 6326

**Brief Description of Work:**

Synthesis of 1,3-dioctyloxy-calix[4]arene from 4-tert-butylcalix[4]arene

**Notes:**

Due consideration shall be given to the following aspects while you submit your offer:

1. The offer shall be valid for a period of 60 days from the date of opening.
2. The price shall remain firm during the above mentioned period.
3. The contractor shall arrange all equipment and personnel required for the successful completion of the work.
4. Taxes, duties and other charges applicable, if any, shall be indicated separately.
5. Payment will be made after completion of work.
6. Work is to be completed as per the enclosed specification.
7. Work Completion period is 45 days after release of work order.

*Deepika Nair*  
29/05/18  
Yours sincerely,  
**Dr. (Mrs.) Deepika Nair**  
SO/D, SDS, PSDD

**Annexure-1****Technical specifications****Nature of Works:**

Synthesis of 1,3-dioctyloxycalix[4]arene from 4-tert-butylcalix[4]arene

**Quantity:** 6 kg of 1,3-dioctyloxycalix[4]arene

**Specifications:**

The product, 1,3-dioctyloxycalix[4]arene, should conform to the following:

1. Appearance: Free flowing white crystals.
2. Melting-point : 115 – 117 °C
3. Purity: >99% as established from GC-MS/HPLC-MS (Certificate to be obtained from ISO Certified Laboratories)
4. Additional supporting characterization data such as IR, NMR, CHON, etc. to be attached

**Work procedures:**

Samples will be tested for the above specification before acceptance and release of payment.

**Free Issue Material:**

20 kg of 4-tert-butylcalix[4]arene will be provided for synthesis.

**Safety and security rules:**

Vendor should take care of safety and security while supply and testing of material at site. Any mishap occurring on the job due to unsafe work practice shall be vendor's liability. Police verification certificates are required for supervisor and all workers employed by the contractor inside the BARC. Security and transport regulation at BARC, Trombay, and premises shall be strictly followed.

**Work completion period:** 45 days after release of work order.

**Compensation for delay:** In the event of grant of extension of time, the government shall be entitled to recover at its discretion from the vendor/contractor agreed liquidated damages at ½% (half percent) per week of the total value of the work in areas subject to a ceiling of 10% of the total value of the contract whether any loss is suffered by the government on account of such delay or not.

*Deepika Nair*  
29/05/18  
Dr. (Mrs.) Deepika Nair  
SO/D, SDS, PSDD