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The importance of organic content to fractal floc properties in estuarine surface waters, insights from video, LISST, and pump sampling: Supporting data

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Files | Description

Main Folders: Cruise Site&Date: Y(ork)R(iver)YY(year)MM(month)DD(day)

Nested Folders/Files

1. CTD:

a. *YRYYMMDD* _CTD.xlsx: Burst average CTD data, , column descriptions as follows:
i. StationID: station id, B-bottom, M-middle, T-top
ii. Start Time/ End Time: Start/End time of burst in Hour, Minute, second. Time in EST/EDT.
iii. Depth, m
iv. Temp: temperature degree C
v. Cond: Conductivity, µS/cm
vi. Salinity: Salinity, PSU
vii. Turbidity: turbidity, NTU
viii. n: number of samples averaged in each burst

2. LISST-100X

a. *YRYYMMDD* _LISST.xlsx: Burst average data processed with Sequoia random shape matrix, column descriptions as follows:
i. StationID: station id, B-bottom, M-middle, T-top
ii. N: number of samples averaged in each burst
iii. Depth: depth from pressure sensor, m
iv. temp: Water temperature, degree C
v. VCtot: total volume concentration, µL/L.

vi. d16V, d50V, d84V: 16th , 50th , and 84th percentile of particle size by volume distribution, µm.
vii. Bin 1-Bin 32: Volume concentration in size bins, µL/L. The midpoint size for each is given in row 2.
viii. ACtot: total area concentration, cm2/L.
ix. d50A: 50th percentile of particle size by area distribution, µm.
x. Bin 1- Bin 32: Area concentration in size bins 1-32, cm2/L. The midpoint size for each is given in row 2.
xi. tau: optical transmission
xii. c: beam attenuation at 670 nm, 1/m.
xiii. b: estimated forward scattering between roughly 0.08°-15° at 670 nm, 1/m.

3. Nortek ADV

a. *YRYYMMDD* _Nortek.xlsx: Burst average data, column descriptions as follows:
i. Station ID: B-bottom, M-middle, T-top
ii. U: mean current velocity, cm/s
iii. std_U: standard deviation of mean current velocity, cm/s
iv. backscatter_x, _y, _z: acoustic backscatter from beam x,y and z
v. n: number of samples in each burst

4. Sontek ADV

a. *YRYYMMDD* _Sontek.xlsx: Burst average data, column descriptions as follows:
i. Station ID: B-bottom, M-middle, T-top
ii. U: mean current velocity, cm/s
iii. std_U: standard deviation of mean current velocity, cm/s
iv. backscatter_x, _y, _z: acoustic backscatter from beam x,y and z
v. n: number of samples in each burst

5. TSS

a. *YRYYMMDD*_TSS.xlsx: Total (TSS), fixed (FSS) and volatile/ organic (VSS) suspended from water samples determined via filtration and loss on ignition (LOI). 0.7 micron GF/F and 60 micron mesh filters were used; ">/< " 60 denotes mass greater than or less than 60 microns.

6. PICS

a. *YRYYMMDD*_PICSLog.xlsx: List of raw PICS sequence files identifying sample ID and Cruise.

b. *YRYYMMDD*.zip: Compressed file containing raw PICS sequence files, *YYYYMMDDHHMMSS*.seq, (year,month,day,hour,second) collected with StreamPix (image acquisition software used by the PICS).

7. Log Sheets.pdf:

Scanned log sheets from each cruise. Provides lat/lon, sample time, and instruments used for each station.

8. Log Book.pdf (available for some cruises):

Additional information from scanned log book entry from CHSD lab log book.

FILES ARE AVAILABLE AT: https://doi.org/10.25773/7gbc-6739

Keywords

York River estuary, suspended sediment, fractal flocs, organic content, particle density

Associated Publications

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